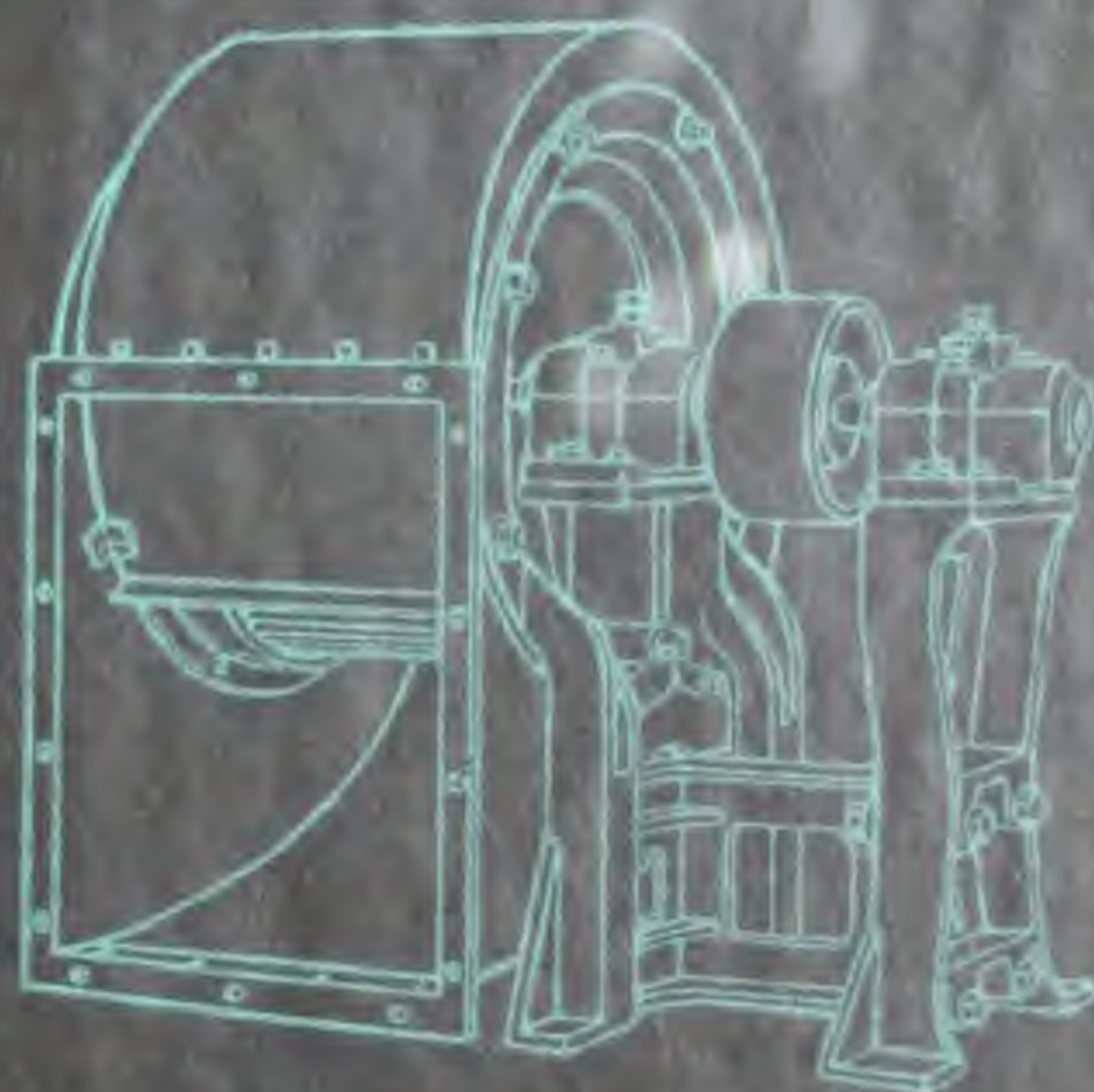


CYCLONE FANS



MATTHEWS & YATES LTD
ENGINEERS • SWINTON
MANCHESTER ENGLAND



Matthews & Yates Ltd
1941

For Co
to thi
see

PRINTED IN ENGLAND

CYCLONE FANS

ENGINEERING EQUIPMENT CO.
LIMITED

SALES ENGINEERS

Suite 420, New Birks Bldg. - MONTREAL

Ernest Rolland.

LA.1823.

ENGINEERING EQUIPMENT CO.
LIMITED
SALES ENGINEERS
Suite 420, New Birks Bldg. - MONTREAL

MATTHEWS & YATES LTD.

SWINTON : : MANCHESTER

CHIEF OFFICE & WORKS, SWINTON, MANCHESTER

TELEGRAMS "CYCLONE" SWINTON, LANCs.

TELEPHONE 2273 SWINTON (2 LINES)

LONDON 20 BEDFORD ROW, W.C.1 GLASGOW 144 ST. VINCENT ST.

PHONE 7823-4 CHANCERY GRAMS VENTIL, LONDON

PHONE 33 CENT. GRAMS CYCLONE, GLASGOW

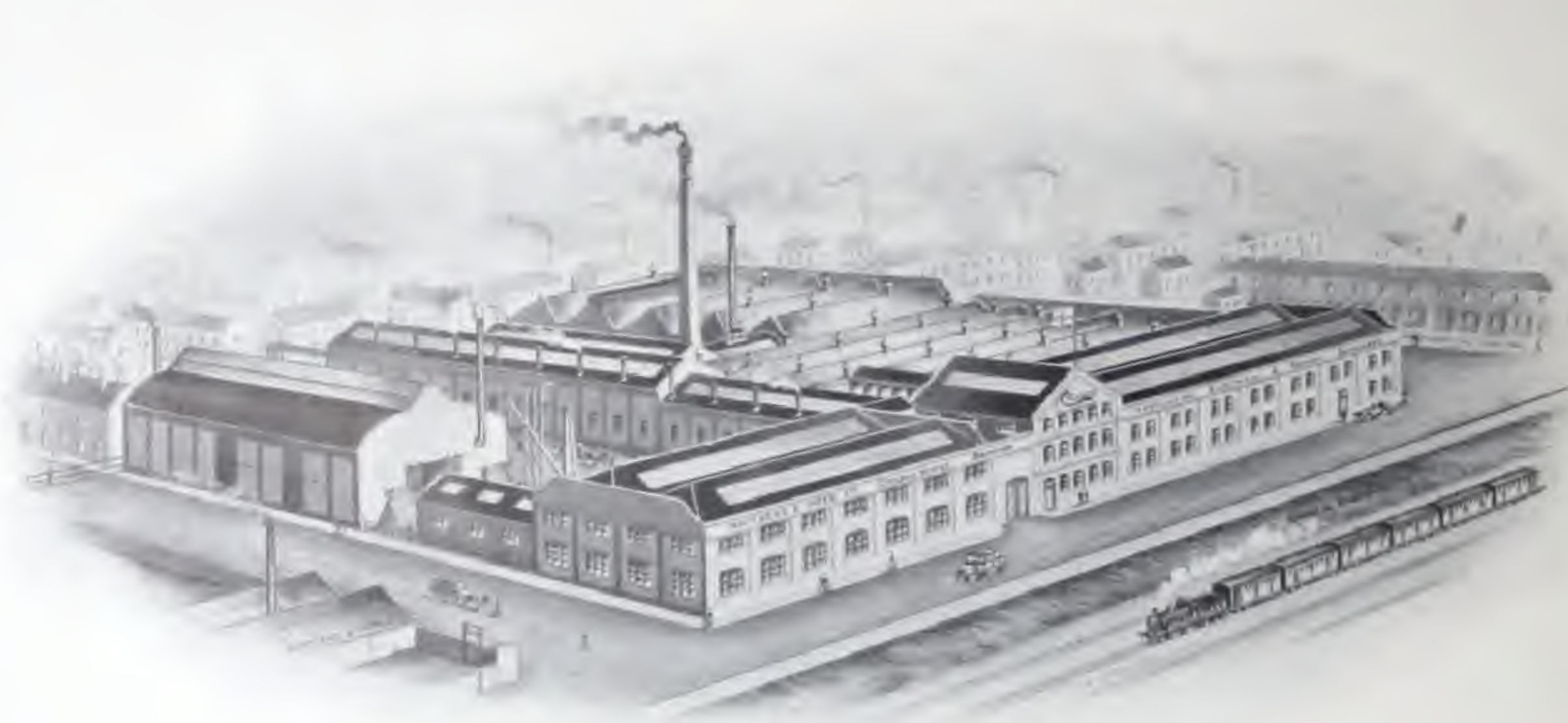
BIRMINGHAM 1 NEWHALL ST. 1.

PHONE CENTRAL 0988

ALSO AT LEEDS AND CARDIFF.

For Complete Index
to this Brochure
see page 120.

CYCLONE



THE CYCLONE WORKS
WHERE ALL FANS DETAILED IN
THIS CATALOGUE AND MANY
OTHER SPECIALITIES ARE PRODUCED

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

FORE

W

a partne

A year c
Air Prop
the Com

By 1890
increase
continua

One of
Humidifi
provide
of variou
and it is
a large
as the r
the priv
many pl

When M
A dema
for thei

Matthev
and app
forefron
Depart
such as
upon in

A consp
an exce
also hig
the dri

And fu
reduce

Our pu
opport

MATTH

January, 19

CYCLONE

FOREWORD

WHEN a firm has been established for over fifty years it is perhaps an opportune time to review its history. The business began in a small way in Manchester in the year 1882 when Mr. William Matthews and Mr. Joseph Yates formed a partnership to carry out contracts in Heating and Gas Lighting.

A year or two later Mr. Walter Yates, who had designed and patented the Cyclone Air Propeller, joined the firm and added mechanical ventilation to the operations of the Company.

By 1890 the Cyclone Works at Swinton had been built to accommodate the large increase in the demand for Fans of various kinds and other specialities which were continually being introduced.

One of the early uses to which Cyclone Fans were put was in connection with Humidifiers for moistening the air in Textile Works, and another early use was to provide the fresh air in Plenum Ventilating and Heating Plant for public buildings of various kinds. These led to a development of the Cyclone Air Conditioning Plant, and it is interesting to note that as early as 1905 Matthews & Yates Ltd. had installed a large equipment in the House of Commons. This was followed immediately, as the result of its satisfactory performance, by a Plant for the air conditioning of the private apartments of the late King Edward at Buckingham Palace, since which many plants have been installed in this country and abroad.

When Matthews & Yates began operations Mechanical Ventilation was in its infancy. A demand for Fans had to be created by providing a supply and designing methods for their use.

Matthews & Yates Ltd. are proud to have been pioneers in the design, construction and application of Fans for every conceivable purpose. They claim to be still in the forefront with Fans of the highest efficiency, due to maintaining a permanent Research Department where not only Fans but various articles used in conjunction with them, such as Heaters, Air Washers, Viscous Filters, etc., are constantly being improved upon in efficiency, construction and adaptability.

A conspicuous example of this is the S.S. or Slow Speed Multivane Fan, which gives an exceptionally high efficiency, and the H.S.C.B. or High Speed Curved Back Fan, also highly efficient, which, by its special design, overcomes the risk of overloading the driving Motor.

And further, the Cyclone Patent Laminated Fan Casing which has done so much to reduce the noise usually associated with Centrifugal Fans.

Our purpose is to serve our customers to the best of our ability and all we ask is the opportunity to do so.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

CENTRIFUGAL FANS

WE make three types of Centrifugal Cased Fans—Paddle Blade, S.S. Multivane (low peripheral speeds) and H.S. Curved Back (high peripheral speeds).

The purpose of this catalogue is to supply information that will assist in selecting the proper type and size of equipment for given requirements.

In Fans it describes the mechanical construction of the Fan components; has complete performance tables giving air output, resistance and velocity head data, together with the necessary dimensions; in fact, all the engineering data necessary for the adaptation of Fans to any ventilating or air distribution problem.

The Paddle Blade Fan was the first to be introduced some forty years ago and was used for all purposes where pressure as well as volume was required. It has given place to the Multivane Fan in most cases where clean or comparatively clean air is to be moved. But it still stands supreme where air charged with abrasive material, fluff, or such as wood refuse is to be dealt with. There are only a few straight radial blades on the runner and so choking can not take place.

The Cyclone S.S. Multivane Fans and H.S. Curved Back Fans are designed in accordance with modern practice as standardised by leading manufacturers of air moving apparatus; and embody the improvements our long experience in the production and use of Fans has determined, together with relatively small housings and large inlets and outlets, such as are generally approved by Engineers and Architects.

The Impeller is built up on a centralized hub, driving through the impeller's centre of gravity, which reduces the overhang to 50% of that of other types built up on a cone and backplate. This construction dispenses with heavy unwieldy impeller parts and gives a proper distribution of the stresses set up by a rapidly revolving impeller.

All Cyclone productions embody the results of upwards of fifty years of intimate and practical experience. The greatest care has been taken to embody all the salient improvements that make an up-to-date and efficient equipment; at the same time novelties have been avoided. Durability and sound constructional design has had first and last consideration.

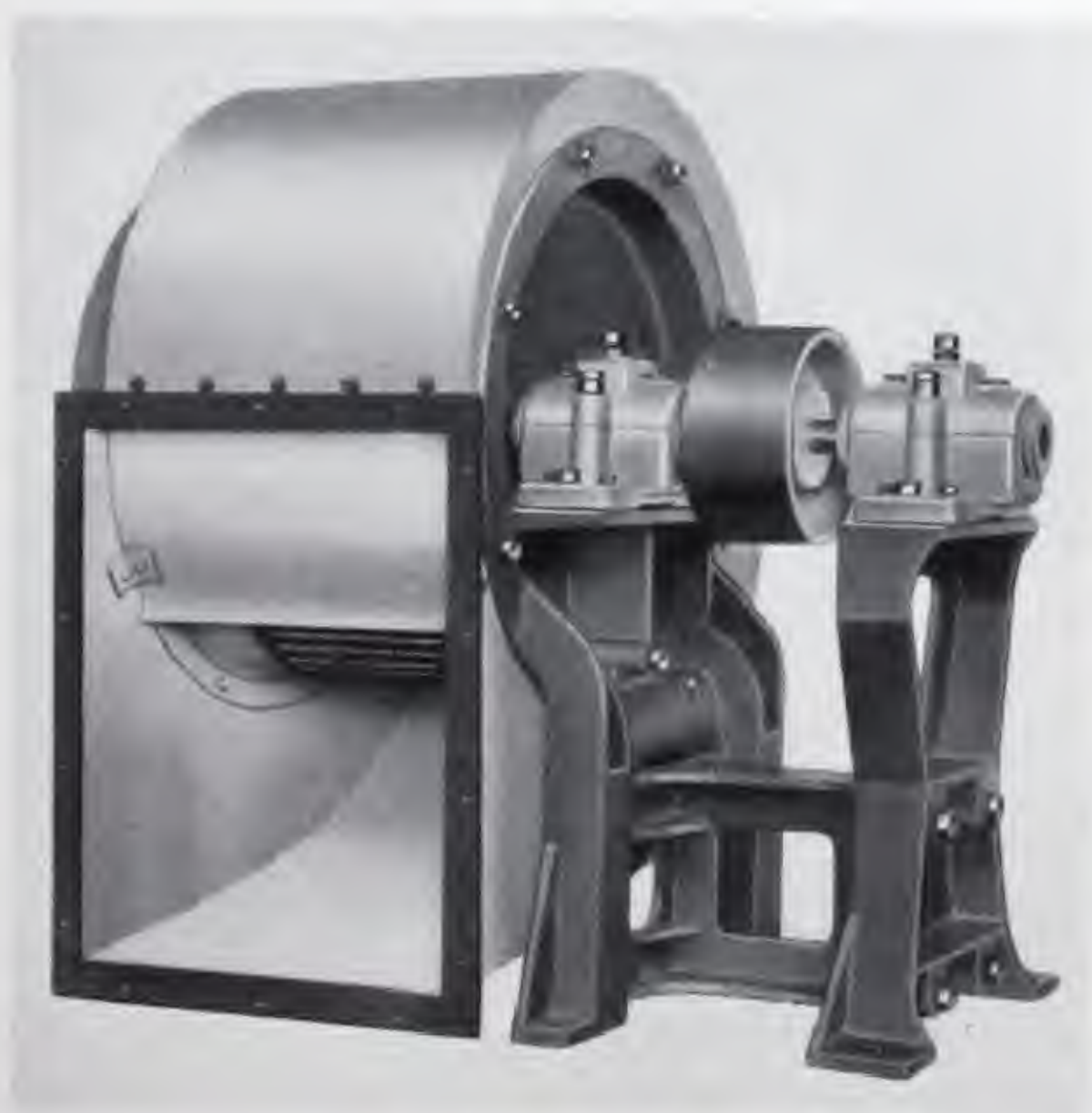
The values given in the performance tables are guaranteed within the tolerance adopted by the Fan Standardisation Committee.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

S·S
FANS

S S
LOW SPEED
MULTIVANE
FANS



S.S. Multivane Fan No. 20 to 60 Construction.
Pulley Side. With Standard Ring Oiling Bearings.
Arrangement No. 3.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MULTIVANE FANS

covering all requirements of
VENTILATION, HEATING & AIR CONDITIONING.

THIS Fan is designed and built specifically to meet the requirements of Architects and Engineers and, as with all Cyclone Fans, can be specified with full confidence that a better Fan, more efficient or durable, at any price, cannot be procured. It combines compactness, high efficiency, quietness, and low power consumption. Sturdy and dependable in construction, it is made in a range of sizes to cover every requirement encountered in ventilation and Air Conditioning work.

Sizes 20 to 60 inclusive are built with a steel scroll, welded to steel side plates, into which are fitted heavy cast iron side frames containing the inlet cone and bearing stool, ensuring perfectly rigid support to the impeller, shaft and bearings. **The side frames allow the fan to be fixed in any one of eight directions of air discharge, either clockwise or counter-clockwise.**

The openings in the Fan housing receiving the side frames are larger in diameter than the impeller, and allow it to be easily removed from the housing for cleaning and inspection.



S.S. Multivane Fan No. 20 to 60 Construction. Inlet Side.
With Standard Ring Oiling Bearing.
Arrangement No. 3.
For dimensions see pages 76 to 90.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

S·S
FANS

IN the larger sizes 70 and upwards the Fans are built to meet the requirements of the installation, and the fan housings are constructed entirely in heavy steel plate, rigidly braced by steel sections to prevent "breathing." The built-up structure supporting the bearings is given special consideration and the vertical supports are carried to the floor line.

All Plates and sections of the fan housings are rivetted and bolted together (not welded as in the smaller sizes), and the fan housing can be so constructed that it may be easily taken apart to gain entrance through comparatively small openings. The impeller, however, cannot be dismantled.

Where silence is essential, our patented **laminated casings** have proved very effective in stopping "drumming." In fact, in most instances where these particular casings have been adopted and the fans run at a reasonable speed, they could not be heard at all.



S.S. Multivane Fan. Construction 70 and upwards. (Type R.5).
Inlet Side. With Standard Ring Oiling Bearing.
Arrangement No. 1.

For dimensions see pages 76 to 90.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

THE impeller is the "Forward Curved Multivane" Type with 60 or 64 blades according to Fan size and is the type most commonly used in heating and ventilating work, because of its low peripheral speed, large capacity and quietness in operation. This Fan is also used in manufacturing processes, drying systems, forced and induced draught systems.

The impeller is driven through its centre of gravity by means of a centrally placed hub, a most important feature if the Fan is to be free from vibration and noiseless when running.

For Fan sizes up to and including size 60 the impeller hub and spider is an alloy steel casting in one piece, and is carefully tested and inspected before it is built into the impeller.

In larger impellers, of Fan sizes 70 and upwards, the impeller hub consists of a steel alloy casting centre to which radial arms are securely attached, and the whole is rigidly stayed by diagonal rods which safely absorb all shock and inertial loads.



S.S. Multivane Impeller 20 to 60 Construction.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

FANSHAFTS

FANSHAFTS are made from best quality steel bar, accurately ground to size. Each shaft is properly proportioned and is of such a diameter that the first critical speed is not reached with the impeller running at maximum recommended speed.

BEARINGS

In all Centrifugal Fans the point of greatest wear and tear occurs in the bearing, and only bearings specially designed for the peculiarly arduous duty are suitable for fan work. The use of ball bearings for fan work is frequently banned on the score of noise; often the real trouble is not so much the ball bearing as bad impeller design and construction, with faulty shaft support.

We do not suggest that ball bearings can take the place of the properly designed sleeve bearing, where absolute quietness of operation is essential, but because ball bearings need so little attention they should be carefully considered, and it will be found that they can most advantageously be used for a large number of the purposes to which Multivane Fans are put.



S.S. Multivane Impeller. Construction 70 and upwards.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

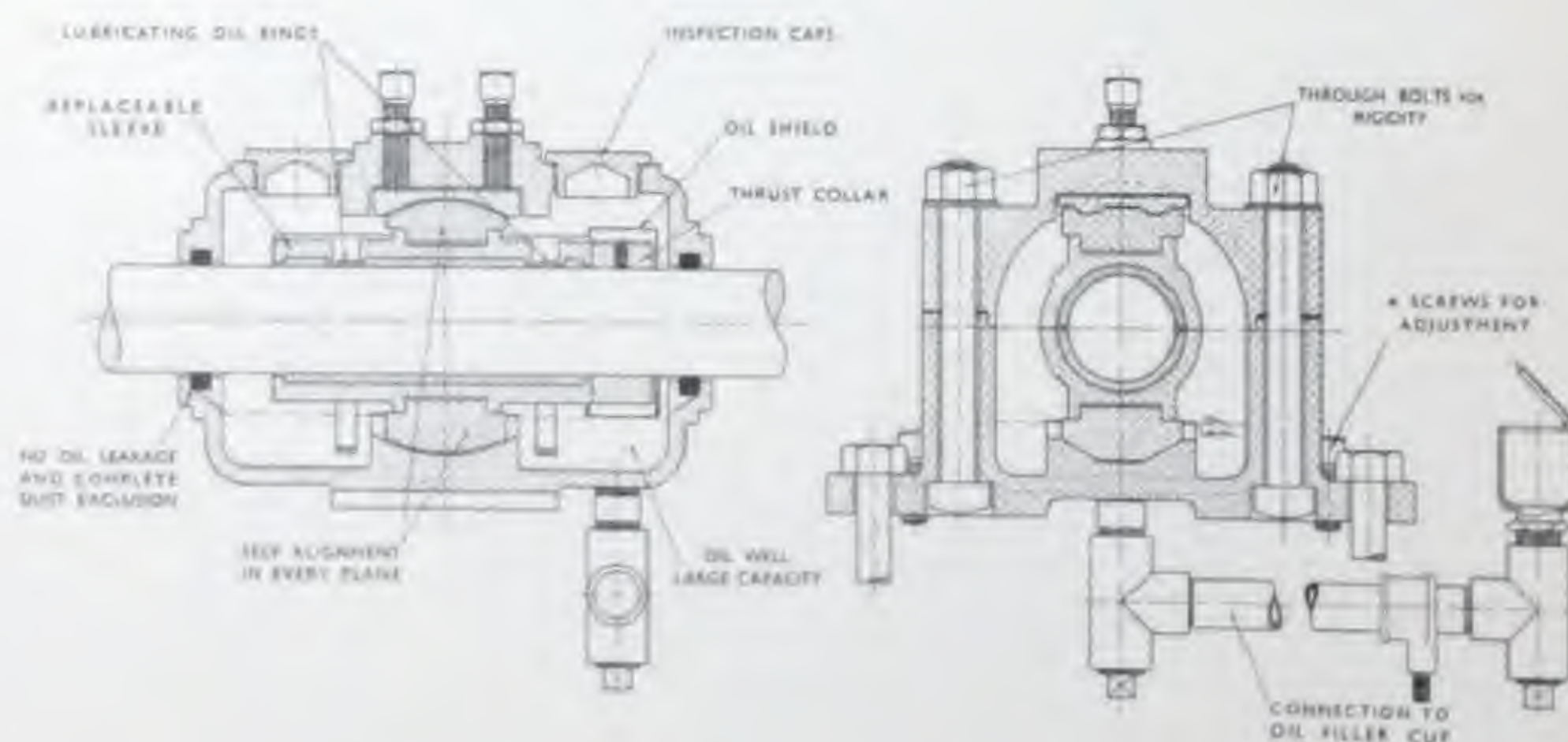
CYCLONE

THE Cyclone standard babbitted inner sleeve ring oiling bearing, consists of an inner malleable iron sleeve, lined with best grade babbitt, and a heavy outer cast iron casing. The inner sleeve is split and may be easily removed or replaced.

The sleeve is supported in the outer casing on heavy pivotal top and bottom blocks so designed that a universal movement allows the inner sleeve to take up any position required in the shaft alignment. The bearing is self-aligning in all planes.

An exceptionally large oil well is provided in the bottom of the bearing. A tinplate shield covers the thrust collar which prevents oil being thrown on to the top half of the housing, thus avoiding leakage through the housing joint.

Large felt washers are fitted into recesses at the ends of the housing, effectively keeping dust, etc., from entering the bearing and stopping oil creep along the shaft.



Cyclone Ring Oiling Self-aligning Babbitted Bearing.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

A standard ball-bearing equipment for single width, single inlet S.S. Multivane Fans up to and including Size 50 is shewn in arrangement No. 2 below. It will be seen that the adapter housing is bolted directly on to the bearing support carried on the heavy cast iron side frame. The double housing, projecting into the cone, reduces the impeller overhang to a minimum and the load is taken by and immediately over the feet of the side frame.

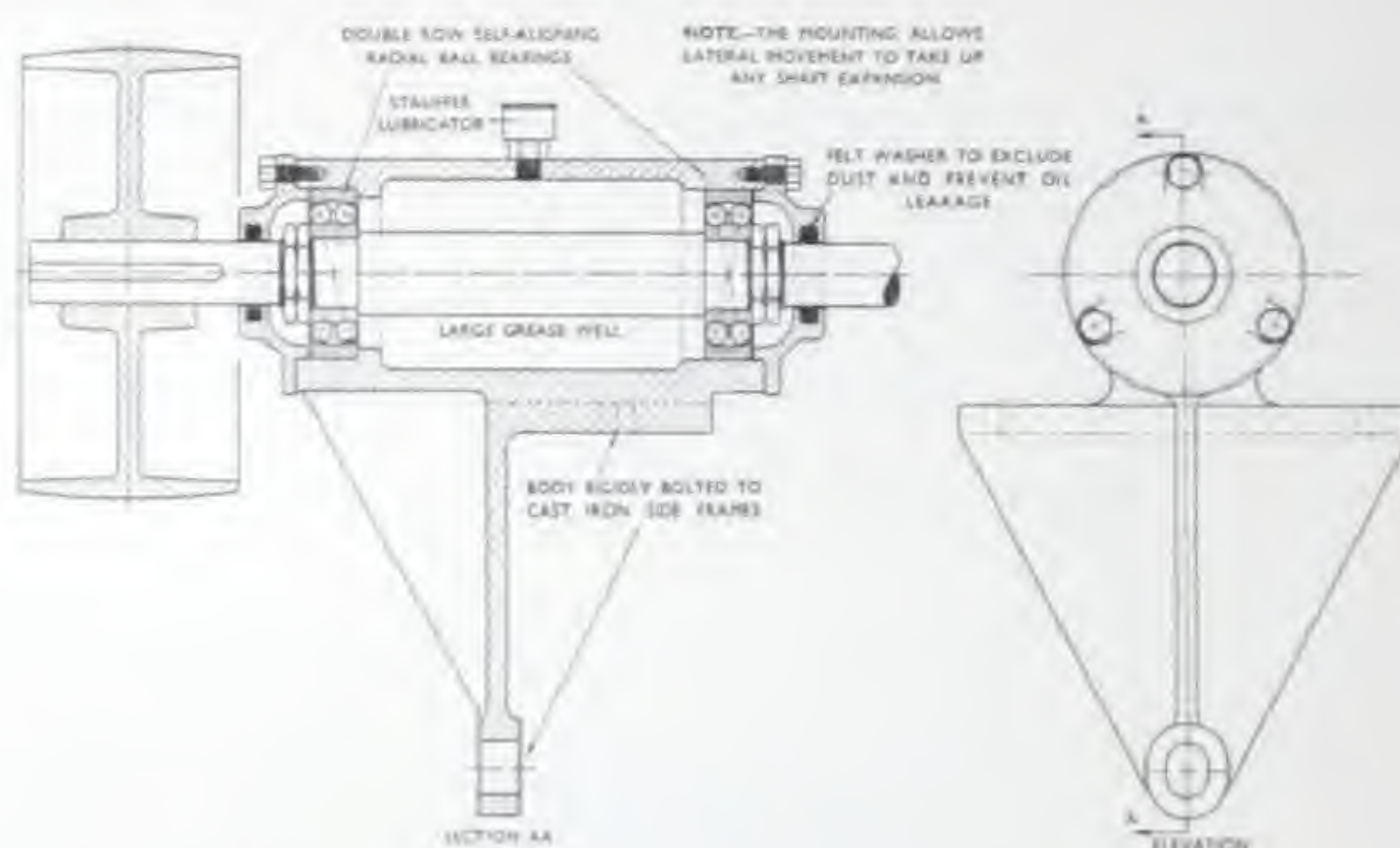
The double ball-bearing housing consists of a rigid cast iron sleeve with supporting base and stiffening arm, accurately machined to receive the ball bearings and end caps. The latter (as in the case of the standard babbitted sleeve ring oiling bearing) is fitted with substantial felt washers, which lie snugly round the shaft at each end of the housing.



S.S. Multivane Fan with Double Ball-bearing
Housing for Construction 20 to 60 sizes. Type R.1.
Arrangement No. 2.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

These felt washers prevent the escape of oil or grease and protect against the entrance of dirt. The ball bearings are mounted with lateral freedom in the housing. They are large and substantial in design, to adequately deal with all radial and thrust loads.



Section of Double Ball-bearing Housing.

"S.S." Multivane Fans are furnished in single or double-width of any required arrangement and drive.

A staff of Engineers is always at your service whenever special requirements—not covered by the data given in this book—are to be met. Without obligation, an Engineer will submit a complete recommendation and cost estimate covering equipment to meet your requirements.

Standard specifications on the several types of Fans are prepared for use of Architect and Engineer.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MULTIVANE FAN PERFORMANCE TABLES

ALL OUR TABLES ARE BASED ON STANDARD AIR AT 60 DEGS. F. AND 70% RELATIVE HUMIDITY AND A BAROMETRIC PRESSURE OF 30" Hg.

IN the Performance Tables, pages 14 to 29, it will be found that there are several sizes of Fans that will perform a given duty, and that the range covers practically any installation.

Generally, the important factors in selecting Fans for ventilating systems are efficiency and noise. First cost and space available are usually secondary. If an efficient and noiseless Fan is the essential, select the Fan size that meets the requirement when operating at the highest point of efficiency. If first cost has to be considered, or space is limited, it may become necessary to select a Fan of lower efficiency. Fans are specially designed by us to meet abnormal conditions.

The Report of the Fan Standardisation Committee under fan performance states: "It must be clearly understood that the performance of a fan is not fully represented by the volume per minute and the resistance head." Of course it is not, but the velocity head, if it is adventured as supplementing the duty the fan is able to perform, becomes usually more misleading than useful.

Owing to the uncertainty of friction losses which occur at points of varying velocities in the ducting of most installations, the amount of velocity head which is actually utilised is seldom known, and the static pressure or resistance head alone best represents the useful pressure for this type of fan.

Our Performance Tables are, therefore, based on the actual delivery at the resistance head shown, and are correct under the conditions specified.

The total fan head is readily obtained by adding to the resistance head the velocity head or pressure corresponding to the outlet velocity given in the third column.

For notes on "How to Select a Cyclone Fan," see pages 93 to 96.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

1,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1742	·190	620	·23	669	·26	707	·28	744	·31	785	·35	821	·37	859	·41	933	·47	1018	·57	1088	·63	1160	·70	1300	·87	1430	1·07		
25	1120	·078	380	·13	429	·16	474	·19	522	·23	572	·26																		

2,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2325	·338					848	·57	878	·60	915	·64	938	·67	968	·71	1022	·78	1091	·88	1146	·97	1197	1·05	1314	1·25	1427	1·44		
25	1490	·139	446	·25	488	·28	523	·32	558	·36	599	·40	631	·44	669	·50	738	·59	814	·70	874	·83								
30	1035	·067	306	·16	349	·20	386	·27																						

2,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2920	·532											1069	1·14	1098	1·18	1149	1·30	1196	1·38	1239	1·46	1290	1·56	1382	1·75	1477	1·98		
25	1860	·216			560	·48	588	·51	610	·56	648	·62	675	·67	706	·72	758	·82	826	·95	872	1·05	930	1·11	1036	1·47	1150	1·77		
30	1286	·104	340	·27	377	·31	411	·36	447	·41	484	·48	516	·53	549	·59	615	·74												

2,750 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	3200	·642											1136	1·42	1176	1·51	1220	1·60	1264	1·70	1300	1·80	1352	1·90	1426	2·10	1514	2·33		
25	2050	·263					622	·65	648	·70	681	·75	709	·81	731	·86	783	·98	846	1·10	891	1·22	940	1·34	1036	1·65	1142	1·95		
30	1420	·126	361	·32	395	·36	429	·42	455	·48	492	·55	521	·60	550	·68	614	·82	676	·95	730	1·17								
35	1045	·068	264	·22	300	·29	328	·35																						

3,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2230	·311					662	·83	686	·85	716	·92	737	·95	760	1·02	806	1·22	865	1·28	912	1·41	953	1·54	1041	1·84	1142	2·17		
30	1550	·151	380	·39	415	·45	445	·50	474	·56	505	·62	531	·68	558	·75	616	·89	676	1·07	726	1·24	780	1·43						
35	1140	·081	274	·27	309	·34	340	·41	375	·48	408	·54	436	·63	470	·71														

3,250 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2415	·364							722	1·02	752	1·09	770	1·15	793	1·21	834	1·34	887	1·48	929	1·62	969	1·75	1062	2·05	1148	2·42		
30	1680	·177	403	·48	437	·54	462	·55	488	·64	518	·72	541	·78	567	·85	618	·99	676	1·20	726	1·34	780	1·50	868	1·85				
35	1235	·095	281	·32	320	·39	348	·45	380	·52	412	·60	439	·66	471	·76	527	·94												

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

3,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
25	2607	.425															
30	1810	.205															
35	1330	.111	298	.38	329	.45	358	.51	384	.58							
40	1018	.065	228	.27	260	.35	288	.46	318	.54							

3,750 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
25	2780	.482															
30	1940	.236															
35	1427	.127	310	.45	339	.51	368	.57	390	.65							
40	1090	.074	234	.32	265	.41	293	.50	322	.58							

4,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
25	2977	.555															
30	2070	.268															
35	1522	.145	322	.50	352	.58	378	.66	402	.73							
40	1165	.085	241	.36	272	.44	297	.52	326	.61							

4,250 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
25	3170	.628															
30	2200	.302															
35	1618	.164	336	.58	365	.68	389	.75	414	.81							
40	1232	.095	248	.41	278	.51	303	.59	332	.68							

4,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
25	3350	.701															
30	2323	.338															
35	1710	.183	351	.69	379	.76	400	.84	422	.92							
40	1307	.107	257	.48	284	.57	309	.65	335	.73							
45	1032	.066	203	.35	231	.45	255	.56	282	.66							

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

4,750 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1 1/2" RH	1 1/2" RH	1 1/2" RH	2" RH	2 1/2" RH	3" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
30	2450	376					606	1.53	632	1.64	647	1.70	665	1.81	700	1.99
35	1805	204					433	1.03	455	1.13	477	1.25	498	1.34	539	1.54
40	1380	119	266	.55	292	.62	318	.70	337	.80	367	.94	390	1.03	411	1.16
45	1093	075	207	.39	235	.52	260	.63	286	.72	315	.83				

5,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		5" RH		6" RH		7" RH		8" RH		10" RH		12" RH		14" RH		16" RH		18" RH		20" RH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
			RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

5,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/2" RH		3" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	2840	505														
35	2085	272														
40	1600	160	291	.73	316	.87	338	.95	360	1.04	382	1.18	400	1.28	418	1.38
45	1260	099	183	.43	209	.54	231	.72								

6,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	3105	602														
35	2380	326														
40	1745	190	311	.96	336	1.05	354	1.14	373	1.26	394	1.39	410	1.52	430	1.65
45	1380	119	235	.68	258	.77	281	.88	298	1.01	314	1.17	344	1.28	364	1.43
50	1120	079	190	.52	215	.67	238	.80	261	.94	286	1.08				

6,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1" RH		1" RH		1" RH		1" RH		1" RH		1 1/2" RH		1 1/2" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH			
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	3370	710													814	3.80	845	4.10	872	4.33	898	4.50	928	4.74	975	5.20	1030	5.83
35	2475	382													571	2.47	602	2.70	638	3.02	666	3.24	696	3.53	760	4.12	821	4.75
40	1890	224			352	1.34	370	1.36	387	1.48	407	1.62	423	1.73	442	1.91	474	2.16	516	2.50	550	2.74	580	3.05	647	3.80	715	4.60
45	1482	140	246	.80	269	.91	288	1.03	308	1.16	331	1.30	348	1.43	369	1.60	407	1.91	448	2.25	485	2.70						
50	1212	092	198	.61	222	.77	243	.87	265	1.04	288	1.21	306	1.35	320	1.52												
55	1003	063	164	.48	188	.61	212	.75	236	.86	258	1.18																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MUL
STANDARD
BAROMETRIC

Fan Size	Outlet Velocity ft. per min.
35	2670
40	2030
45	1608
50	1303
55	1080

Fan Size	Outlet Velocity ft. per min.
35	2853
40	2180
45	1720
50	1397
55	1160

Fan Size	Outlet Velocity ft. per min.
35	3050
40	2325
45	1838
50	1490
55	1212
60	1012

Fan Size	Outlet Velocity ft. per min.
35	3230
40	2473
45	1955
50	1585
55	1298
60	1100

Fan Size	Outlet Velocity ft. per min.
40	2620
45	2070
50	1673
55	1380
60	1160

MATTHE

CYCLONE

S·S
FANS

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

7,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		20" RH		24" RH		30" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	2670	-446																												
40	2030	-258																												
45	1608	-162	259	-94	281	1-10	300	1-22	320	1-33	339	1-50	354	1-62	372	1-76	410	2-11	448	2-55	481	2-90								
50	1303	-106	205	-72	227	-86	247	1-00	268	1-13	291	1-32	309	1-45	330	1-62	368	2-05												
55	1080	-073	170	-59	191	-73	214	-89	237	1-07	259	1-25																		

7,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		18" RH		20" RH		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	2855	.510												603	3.24	620	3.44	650	3.73	678	4.03	704	4.28	732	4.59	787	5.16	842	5.85
40	2180	.297					407	1.95	420	2.03	439	2.20	453	2.31	468	2.48	498	2.72	535	3.13	564	3.47	590	3.82	650	4.54	712	5.30	
45	1720	.185	274	1.15	293	1.27	311	1.40	327	1.53	347	1.71	362	1.85	380	2.02	412	2.33	450	2.79	481	3.10	514	3.50	575	4.34			
50	1397	.122	215	.86	236	.97	256	1.10	271	1.27	294	1.48	312	1.62	330	1.83	368	2.21	407	2.58									
55	1160	.084	176	.68	196	.77	216	1.00	238	1.20	260	1.34	278	1.45															

8,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		20" RH		24" RH		30" RH		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	3050	.572																													
40	2325	.338																													
45	1838	.211																													
50	1490	.139	223	.99	244	1.11	261	1.27	279	1.43	299	1.60	316	1.77	335	1.97	369	2.35	407	2.77	437	3.33									
55	1232	.095	181	.80	201	.86	220	1.09	240	1.21	260	1.47	279	1.53	300	1.90															
60	1032	.066	153	.63	175	.80	193	1.00																							

8,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		18" RH		20" RH			
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	3230	.651													677	4.72	705	5.02	728	5.28	749	5.55	777	5.93	820	6.54	869	7.27		
40	2472	.383						456	2.74	474	2.94	484	3.05	498	3.24	525	3.55	557	3.95	583	4.28	608	4.62	664	5.41	718	6.22			
45	1955	.239			317	1.71	333	1.85	353	2.02	367	2.18	381	2.35	397	2.55	425	2.85	461	3.29	489	3.63	516	4.02	573	4.98	631	5.97		
50	1585	.158	231	1.10	252	1.32	270	1.45	287	1.61	305	1.80	320	1.96	336	2.12	371	2.55	407	3.09	436	3.51	468	4.00						
55	1308	.107	187	.90	207	.98	225	1.23	243	1.40	261	1.59	281	1.72	300	2.06	334	2.41												
60	1100	.076	157	.72	178	.93	196	1.13	217	1.32	238	1.51																		

9,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		20" RH		24" RH		30" RH			
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2620	.430																														
45	2070	.267																														
50	1675	.176	242	1.31	261	1.47	277	1.62	293	1.78	311	2.00	325	2.17	340	2.35	371	2.75	407	3.32	436	3.72										
55	1383	.120	194	1.01	213	1.14	229	1.37	246	1.55	264	1.74	283	1.92	301	2.19	334	2.60	366	3.11												
60	1162	.085	161	.81	182	1.04	199	1.20	220	1.43	239	1.64	254	1.73	275	2.06																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

**S·S
FANS**

CYCLONE

S.S. MULTIVANE FANS

STANDARD AIR 60 F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

9,500 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2770	.479							506	3.88	516	3.97	530	4.15	556	4.50	583	4.90
45	2185	.300							388	2.77	401	2.91	416	3.13	442	3.43	474	3.94
50	1770	.196	252	1.50	271	1.67	286	1.81	300	2.00	316	2.21	331	2.43	346	2.60	375	3.00
55	1462	.134	201	1.16	219	1.25	235	1.51	251	1.70	267	1.90	285	2.20	302	2.32	335	2.77
60	1228	.094	165	.90	185	1.13	202	1.29	221	1.52	240	1.76	255	1.94	275	2.21		

10,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2915	.531									533	4.50	547	4.70	574	5.10	598	5.48
45	2300	.331									402	3.13	413	3.27	427	3.50	451	3.85
50	1860	.216			280	1.91	294	2.06	308	2.25	324	2.47	338	2.68	353	2.90	379	3.30
55	1540	.149	208	1.34	225	1.42	240	1.67	256	1.87	272	2.06	288	2.32	303	2.46	335	2.96
60	1300	.106	170	1.05	189	1.24	206	1.44	222	1.62	242	1.90	257	2.10	275	2.33	306	2.94

11,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	3200	.640									568	5.70	588	6.04	610	6.39	632	6.73
45	2526	.400									411	3.69	426	3.97	436	4.10	448	4.33
50	2050	.263									324	2.79	341	3.00	354	3.22	366	3.44
55	1700	.181	222	1.77	238	1.84	252	2.04	267	2.27	281	2.48	294	2.79	310	2.92	338	3.47
60	1420	.126	181	1.28	198	1.45	214	1.65	228	1.88	246	2.17	261	2.38	276	2.69	306	3.21
70	1047	.068	129	.87	148	1.13	167	1.42	185	1.72	204	1.87						

12,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45	2760	.476									449	4.93	458	5.05	470	5.27	493	5.70
50	2235	.312									357	3.62	368	3.79	380	4.07	403	4.88
55	1848	.214			251	2.31	265	2.52	279	2.70	292	2.93	303	3.21	318	3.41	344	3.82
60	1552	.151	191	1.53	208	1.78	222	2.00	237	2.22	252	2.48	265	2.71	280	2.99	308	3.56
70	1138	.081	134	1.05	150	1.36	169	1.62	186	1.88	204	2.11	218	2.35				

13,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45	3000	.562									482	6.10	490	6.40	504	6.97	537	7.40
50	2420	.366									361	4.07	376	4.35	385	4.55	397	4.83
55	2000	.250									282	3.06	293	3.23	306	3.44	316	3.74
60	1680	.176	202	1.91	218	2.12	232	2.35	244	2.58	259	2.89	271	3.12	284	3.40	309	3.97
70	1232	.095	139	1.29	155	1.58	172	1.84	187	2.02	204	2.37	219	2.64	235	2.99		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

S.S.
FANS

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

14,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH						
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP					
45	3215	·652														506	7·29	523	7·72	542	8·18	561	8·64	578	9·08	601	9·70	633	10·7	672	11·9		
50	2608	·426														392	5·32	401	5·41	411	5·69	433	6·23	457	6·90	475	7·32	496	7·90	537	9·20	580	10·4
55	2165	·293																															
60	1808	·204																															
70	1325	·110	145	1·49	161	1·76	175	1·97	190	2·25	204	2·58	219	2·93	233	3·24	264	4·03	289	4·82													
80	1018	·065	112	1·08	129	1·37	146	1·78	162	2·13	179	2·34																					

15,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH	
			RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	2798	.490																										
55	2315	.335																										
60	1940	.235																										
70	1420	.126	151	1.76	165	2.03	179	2.24	193	2.63	207	2.93	220	3.25	233	3.52	262	4.31	288	5.09	313	6.11						
80	1087	.074	116	1.23	131	1.62	147	1.97	162	2.37	179	2.58																

16,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH	
			RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	2980	-555																										
55	2470	-382																										
60	2060	-265																										
70	1515	-144	157	1.99	171	2.28	184	2.55	196	2.95	211	3.24	223	3.62	233	3.87	261	4.60	287	5.36	312	6.40						
80	1162	-085	119	1.45	133	1.86	148	2.20	163	2.50	179	2.87	190	3.15														

17,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH	
			RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	3170	-630										453	8.61	464	9.13	483	9.76	503	10.2	518	10.7	538	11.7	569	12.8	605	14.2	
55	2620	-428					346	6.48	355	6.72	365	6.87	376	7.18	393	7.65	413	8.47	432	9.10	450	9.80	486	11.4	523	12.5		
60	2200	-303					273	4.45	282	4.65	294	5.05	304	5.27	314	5.65	334	6.20	358	7.13	377	7.90	395	8.70	435	10.3	476	12.0
70	1615	-163	162	2.22	178	2.63	190	2.95	203	3.25	216	3.67	226	4.10	236	4.30	261	5.17	286	5.75	310	6.69	335	7.74				
80	1232	-095	122	1.70	136	2.07	150	2.40	167	2.65	179	3.10	191	3.45	205	3.91	232	4.90										

18,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH					
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP				
50	3350	.700														472	9.75	486	10.4	504	11.1	522	11.8	536	11.3	551	13.1	582	14.2	617	15.8	
55	2780	.484														378	8.06	388	8.20	406	8.70	425	9.37	442	10.1	460	10.8	494	12.4	529	13.3	
60	2325	.336														314	6.14	324	6.52	342	7.10	365	8.02	382	8.68	400	9.47	439	11.2	477	13.0	
70	1706	.182	168	2.54	183	2.90	195	3.18	206	3.71	219	4.03	228	4.30	240	4.66	263	5.40	286	6.24	309	7.15	333	8.20	377	10.4						
80	1308	.106	126	1.88	141	2.23	153	2.50	167	2.85	179	3.25	191	3.73	204	4.15	231	5.20	253	6.18												
90	1033	.067	100	1.40	115	1.80	130	2.30	140	2.76																						

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

19,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	2930	-538											392	9.32	402	9.51	420	9.98	437	10.5
60	2450	-375											303	6.09	316	6.53	324	6.84	332	7.17
70	1802	-203	174	2.90	189	3.33	199	3.70	210	4.01	223	4.44	233	4.75	244	5.07	266	6.02	286	6.77
80	1380	-118	130	2.15	143	2.43	155	2.73	168	3.15	180	3.62	192	4.05	204	4.42	230	5.45	253	6.48
90	1092	-075	103	1.55	116	2.05	131	2.49	144	3.00	158	3.25								

20,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3085	-595											406	10.6	416	10.8	432	11.4	450	11.8
60	2590	-420											313	6.85	325	7.40	333	7.61	340	8.02
70	1898	-225			195	3.70	206	4.12	216	4.48	227	4.95	238	5.27	248	5.65	268	6.54	287	7.30
80	1455	-132	134	2.39	146	2.74	158	3.05	170	3.45	182	3.94	194	4.34	204	4.74	229	5.74	252	6.74
90	1152	-083	105	1.79	118	2.31	132	2.74	145	3.15	158	3.66								

21,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3250	-660											420	12.0	430	12.4	446	13.0	462	13.3
60	2715	-461											335	8.37	342	8.61	351	9.00	369	9.80
70	1992	-249			201	4.12	212	4.55	223	5.00	232	5.44	243	5.97	252	6.30	271	7.03	290	8.07
80	1522	-145	138	2.60	152	3.10	162	3.40	174	3.90	185	4.28	196	4.71	205	5.10	228	6.08	251	7.04
90	1210	-091	107	2.03	119	2.54	132	2.97	145	3.24	158	3.85	170	4.21	182	4.82				

22,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3400	-722													444	13.9	460	14.6	475	14.9
60	2842	-506											352	9.63	361	10.0	379	10.9	395	11.7
70	2085	-271			219	5.12	228	5.56	238	6.04	249	6.52	258	6.94	276	7.81	294	8.73	312	9.60
80	1600	-160	141	2.82	155	3.35	165	3.79	177	4.13	188	4.69	197	5.17	206	5.52	228	6.55	250	7.45
90	1264	-100	110	2.23	123	2.69	134	3.07	147	3.44	158	4.00	170	4.52	181	5.08	206	6.37		
100	1023	-065	88	1.69	104	2.17	116	2.79	129	3.36										

23,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	2975	-552													361	10.6	370	11.1	388	12.1
70	2180	-297			225	5.68	233	6.12	243	6.63	253	7.06	262	7.57	281	8.54	297	9.36	314	10.2
80	1680	-176	145	3.15	158	3.65	168	4.02	179	4.56	190	5.06	198	5.46	210	5.90	230	6.86	250	7.90
90	1320	-109	112	2.44	125	2.87	136	3.22	148	3.69	159	4.21	170	4.81	181	5.32	205	6.61	225	7.82
100	1070	-072	91	1.82	104	2.40	117	2.98	129	3.59	143	4.00								

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

24,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		18" RH		20" RH					
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
60	3100	-601														372	11.8	382	12.5	398	13.4	413	14.2	427	15.0	444	16.0	471	17.8	502	19.9	
70	2268	-321					232	6.30	240	6.78	249	7.32	259	7.78	268	8.30	286	9.30	302	10.0	318	11.0	335	12.1	370	14.1	406	16.5				
80	1740	-190	150	3.52	163	4.04	172	4.43	182	5.00	193	5.48	202	5.86	212	6.30	231	7.40	250	8.43	270	9.60	291	11.0	330	13.8	362	16.5				
90	1380	-119	115	2.71	126	3.13	138	3.48	149	4.08	160	4.58	171	5.11	181	5.56	205	6.87	227	8.18												
100	1115	-079	94	2.02	105	2.68	118	3.21	130	3.81	143	4.20																				

25,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		18" RH		20" RH										
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP							
60	3230	-652														383	13.1	395	13.8	410	14.7	424	15.5	437	16.2	454	17.4	479	19.2	507	21.3						
70	2370	-351														238	6.93	246	7.47	254	8.02	265	8.51	273	9.00	290	10.0	306	10.7	322	11.9	337	12.8	370	14.9	404	17.4
80	1820	-207	154	3.90	167	4.43	176	4.93	185	5.36	196	5.92	205	6.32	215	6.76	233	7.98	251	8.90	270	10.1	290	11.5	328	14.3	363	17.4									
90	1430	-128	118	2.96	129	3.38	140	3.75	150	4.40	161	4.90	172	5.44	181	5.87	204	7.16	224	8.44																	
100	1160	-084	95	2.27	106	2.92	119	3.45	130	3.90	143	4.50	152	4.96	165	5.71																					

26,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		18" RH		20" RH		24" RH		30" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	3350	-696													406	15.1	422	16.2	435	17.2	448	17.9	463	18.9	488	20.7	516	23.0				
70	2470	-382					244	7.65	252	8.22	260	8.78	271	9.32	279	9.82	296	10.9	311	11.5	326	12.8	341	13.7	372	15.8	406	18.3				
80	1892	-225			170	4.77	180	5.31	188	5.80	198	6.42	208	6.82	217	7.30	236	8.46	252	9.20	270	10.7	290	12.0	327	14.9	363	17.8				
90	1495	-140	120	3.20	132	3.63	142	4.00	152	4.75	163	5.20	172	5.71	181	6.22	204	7.45	224	8.67	244	10.2										
100	1205	-091	96	2.51	107	3.15	119	3.67	131	4.02	143	4.77	153	5.22	165	5.97																
110	1000	-062	80	1.95	94	2.48	106	3.25	118	3.91																						

27,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		18" RH		20" RH		24" RH		30" RH			
			RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP		RPM BHP			
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2580	-416						258	9.00	268	9.57	278	10.1	284	10.6	301	11.8	315	12.5	330	13.7	344	14.7	374	16.8	407	19.3							
80	1955	-240			174	5.14	183	5.75	193	6.32	202	6.91	211	7.49	219	7.93	237	9.00	253	10.0	270	11.3	290	12.7	325	15.5	359	18.3						
90	1552	-151	124	3.39	135	3.96	145	4.42	155	5.00	165	5.56	173	6.13	182	6.60	204	7.87	224	9.05	244	10.7	261	12.4										
100	1258	-099	98	2.70	110	3.30	121	3.77	132	4.20	143	4.91	153	5.53	165	6.21																		
110	1038	-067	81	2.09	94	2.70	106	3.45	118	4.13																								

28,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH		18" RH		20" RH			
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2660	.442							275	10.3	284	11.0	290	11.4	307	12.7	320	13.4	335	14.7	349	15.7	377	18.0	408	20.6				
80	2030	.257					187	6.27	197	6.76	206	7.46	215	8.15	233	9.65	255	10.9	271	12.0	291	13.4	324	16.2	358	19.2				
90	1610	.162	127	3.63	137	4.33	147	4.83	157	5.30	167	5.99	175	6.57	183	7.03	203	8.33	222	9.49	242	11.1	261	12.7						
100	1303	.106	101	2.90	113	3.45	123	3.90	133	4.45	144	5.10	154	5.80	164	6.48	184	8.10												
110	1080	.073	83	2.30	94	2.92	107	3.60	118	4.30	130	4.80																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

29,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
70	2750	.473						281	11.2	288	12.0	296	12.3	312	13.7	325	14.5
80	2110	.379						209	8.05	218	8.65	226	9.20	242	10.3	258	11.5
90	1665	.273	129 3.98	140 4.62	149 5.08	159 5.60	169 6.38	176 6.88	185 7.43	204 8.68	222 10.0	240 11.6	260 13.2				
100	1348	.194	102 3.17	114 3.71	124 4.14	133 4.78	144 5.42	154 6.13	164 6.72	184 8.33	202 9.95						
110	1110	.177	85 2.48	95 3.23	107 3.88	118 4.60	130 5.10										

30,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
70	2855	.510						287	12.2	298	13.0	304	13.5	320	14.9	332	16.0
80	2180	.297						219	8.75	226	9.20	233	9.95	248	10.8	265	12.4
90	1720	.185	135 4.30	145 4.62	155 5.08	163 5.61	172 6.75	180 7.35	188 8.00	205 9.25	225 11.1	240 12.1	255 14.0	285 17.2			
100	1397	.122	106 3.40	116 3.88	126 4.40	135 5.00	145 5.90	155 6.40	163 7.25	184 8.75	203 10.3						
110	1160	.084	86 2.70	98 3.00	108 4.00	119 4.70	130 5.25	139 5.80									

32,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
70	3060	.581								313	15.0	322	16.0	336	17.3	350	18.4
80	2325	.337						234	10.8	242	11.5	256	12.6	273	14.0	287	15.5
90	1838	.211		150 6.00	160 6.40	168 7.00	177 7.60	186 8.50	194 9.10	209 10.4	227 12.0	242 13.3	257 14.6	286 18.4	316 22.5		
100	1490	.139	110 3.90	120 4.40	130 5.00	140 5.60	150 6.50	158 7.00	167 8.00	184 9.30	202 11.0	218 13.1					
110	1232	.095	90 3.10	100 3.35	110 4.30	120 4.80	130 5.80	139 6.20	150 7.50								
120	1032	.064	77 2.50	87 3.15	96 4.00												

34,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
70	3230	.652								337	18.5	351	20.0	363	21.0	374	22.0
80	2473	.383						236	11.6	242	12.0	248	13.0	262	14.0	278	16.0
90	1955	.239		157 6.70	166 7.30	176 8.00	183 8.70	190 9.25	198 10.2	212	11.4	230	13.1	244	14.4	258	16.0
100	1585	.157	115 4.40	125 5.10	135 5.75	143 6.40	152 7.20	160 8.00	168 8.40	185	10.0	203	12.3	218	14.0	234	16.0
110	1308	.107	93 3.55	102 4.20	112 4.80	121 5.40	130 6.40	140 6.90	150 8.00	166	9.50						
120	1100	.076	78 2.79	88 3.71	98 4.48	108 5.25	118 5.88										

36,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
80	2620	.430						245	11.5	250	14.0	256	14.7	270	16.0	285	17.7
90	2070	.287						188	9.70	196	10.5	203	11.2	217	12.5	234	14.4
100	1675	.174	120 5.20	130 5.80	138 6.40	146 7.10	155 8.00	162 8.80	170 9.40	185	11.0	203	13.2	218	14.8	233	16.8
110	1383	.120	97 4.00	106 4.50	114 5.40	123 6.20	132 7.00	141 7.70	150 8.80	167	10.4	183	12.4				
120	1143	.085	81 3.20	91 4.00	100 4.80	109 5.70	119 6.50	127 7.00	137 8.00								

CYCLONE

**S·S
FANS**

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

38,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/4" RH		3" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	2770	-480							252	15.5	257	16.0	264	16.6	278	18.0
90	2185	-300					178	9.80	186	10.2	194	11.0	202	11.7	208	12.5
100	1770	-196	126	6.00	135	6.60	143	7.20	150	8.00	158	8.80	165	9.70	173	10.4
110	1462	-134	100	4.60	109	5.00	117	6.00	125	6.80	133	7.60	142	8.80	151	9.25
120	1228	-094	82	3.60	92	4.50	101	5.20	110	6.00	120	7.00	127	8.00	136	8.80
130	1050	-069	70	3.00	80	3.90	89	4.90	99	5.90						

40,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/4" RH		3" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	2915	-531							266	18.0	273	18.8	287	20.4	299	22.0
90	2300	-330					186	11.1	193	11.6	201	12.4	206	13.0	213	14.0
100	1860	-216			140	7.60	147	8.20	154	9.00	162	10.0	169	10.7	176	11.6
110	1540	-148	103	5.30	112	5.70	120	6.70	128	7.50	136	8.25	143	9.30	151	10.0
120	1300	-106	85	4.20	94	5.00	103	5.75	111	6.50	120	7.60	128	8.40	136	9.30
130	1100	-076	71	3.27	81	4.36	90	5.27	99	6.35	110	6.90				

42,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/4" RH		3" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	3050	-581							270	19.0	275	20.0	290	22.5	300	23.6
90	2415	-365					187	12.0	194	13.0	202	13.9	207	14.8	214	15.5
100	1955	-239			140	8.00	147	8.90	154	9.75	162	10.7	169	11.5	176	12.2
110	1620	-164	103	5.40	112	6.40	120	7.20	128	7.85	136	8.90	143	9.80	151	10.5
120	1360	-116	86	4.57	94	5.30	103	6.00	111	6.90	120	7.80	128	8.85	136	9.70
130	1155	-084	72	3.75	83	4.80	91	5.70	100	6.70	110	7.55	118	8.20		
140	1000	-062	63	3.16	74	4.02	83	5.28	92	6.30						

44,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/4" RH		3" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	3200	-640							278	22.1	284	22.9	298	24.8	307	26.5
90	2525	-400					201	14.4	206	15.2	214	16.2	220	17.1	233	19.0
100	2050	-262			154	10.3	160	11.0	168	12.0	175	12.8	181	13.7	194	15.8
110	1700	-181	107	6.25	116	7.15	123	7.80	131	9.00	139	9.90	144	10.5	152	11.5
120	1420	-126	88	5.10	96	5.80	105	6.60	111	7.50	121	8.60	130	9.50	136	10.7
130	1212	-092	74	4.25	85	5.33	92	6.20	100	6.85	110	8.10	118	8.90	127	10.1
140	1047	-068	64	3.45	74	4.80	83	5.60	92	6.80	101	7.40				

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND

S.S.
FANS

CYCLONE

S.S. MULTIVANE FANS

STANDARD AIR 80° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

46,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Temp. 200° F.	Static Head in ft.	1" dia.	2" dia.	3" dia.	4" dia.	5" dia.	6" dia.	7" dia.	8" dia.	9" dia.	10" dia.	11" dia.	12" dia.	13" dia.	14" dia.	15" dia.	16" dia.	17" dia.	18" dia.	19" dia.	20" dia.
80	1140	470																				
90	1040	430																				
100	1170	480																				
110	1240	510																				
120	1300	530																				
130	1360	550																				
140	1420	570																				
150	1480	590																				
160	1540	610																				
170	1600	630																				

48,000 C.F.M.

Fan Size	Outlet Temp. 200° F.	Static Head in ft.	1" dia.	2" dia.	3" dia.	4" dia.	5" dia.	6" dia.	7" dia.	8" dia.	9" dia.	10" dia.	11" dia.	12" dia.	13" dia.	14" dia.	15" dia.	16" dia.	17" dia.	18" dia.	19" dia.	20" dia.
80	1140	480																				
90	1040	440																				
100	1170	490																				
110	1240	520																				
120	1300	540																				
130	1360	560																				
140	1420	580																				
150	1480	600																				
160	1540	620																				
170	1600	640																				

50,000 C.F.M.

Fan Size	Outlet Temp. 200° F.	Static Head in ft.	1" dia.	2" dia.	3" dia.	4" dia.	5" dia.	6" dia.	7" dia.	8" dia.	9" dia.	10" dia.	11" dia.	12" dia.	13" dia.	14" dia.	15" dia.	16" dia.	17" dia.	18" dia.	19" dia.	20" dia.
80	1140	490																				
90	1040	450																				
100	1170	500																				
110	1240	530																				
120	1300	550																				
130	1360	570																				
140	1420	590																				
150	1480	610																				
160	1540	630																				
170	1600	650																				

52,000 C.F.M.

Fan Size	Outlet Temp. 200° F.	Static Head in ft.	1" dia.	2" dia.	3" dia.	4" dia.	5" dia.	6" dia.	7" dia.	8" dia.	9" dia.	10" dia.	11" dia.	12" dia.	13" dia.	14" dia.	15" dia.	16" dia.	17" dia.	18" dia.	19" dia.	20" dia.
80	1140	500																				
90	1040	460																				
100	1170	510																				
110	1240	540																				
120	1300	560																				
130	1360	580																				
140	1420	600																				
150	1480	620																				
160	1540	640																				
170	1600	660																				

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

S·S
FANS

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

56,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
90	3215	-645															
100	2608	-425															
110	2165	-293															
120	1808	-204	103 8.62	111 9.85	117 10.9	124 12.0	131 13.3	137 14.4	143 15.5	155 18.0	167 21.0	180 23.4	194 26.4	219 32.7	243 38.4		
130	1540	-148	85 7.02	93 8.15	99 9.15	106 10.4	114 11.5	120 12.7	126 13.7	140 16.3	155 18.9	168 22.3					
140	1325	-110	73 5.90	81 7.00	88 7.80	95 9.00	102 10.2	109 11.7	117 13.0	132 16.0							
150	1160	-084	63 5.10	71 6.50	79 7.70	86 8.80	95 10.0										
160	1018	-065	56 4.28	64 5.38	73 7.00	81 8.50											

60,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
100	2798	-489															
110	2315	-332															
120	1940	-235															
130	1650	-170	89 8.10	97 9.30	103 10.5	110 11.8	117 13.1	122 14.2	128 15.3	141 17.9	154 20.6	167 23.8	180 27.4	204 34.4			
140	1420	-126	76 7.00	83 8.10	90 9.00	97 10.4	104 11.6	110 13.0	117 14.0	130 17.2	144 20.1	156 23.8					
150	1240	-096	66 6.00	74 7.32	80 8.43	87 9.35	95 11.0	102 12.3	110 13.8								
160	1087	-074	58 4.92	65 6.50	74 7.90	81 9.50	89 10.3										

64,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
100	2980	-552															
110	2470	-381															
120	2060	-265															
130	1760	-194	93 9.60	101 11.0	107 12.2	112 13.4	119 14.8	124 15.9	130 16.9	142 20.0	154 22.8	166 25.8	179 29.4	203 36.8	224 43.5		
140	1515	-144	78 7.90	85 9.10	92 10.2	98 11.8	105 12.8	111 14.5	116 15.5	130 18.4	143 21.4	156 25.5					
150	1320	-109	68 6.85	76 8.05	82 9.00	89 10.3	95 11.8	102 13.5	109 14.9	124 18.4							
160	1162	-084	59 5.80	66 7.44	74 8.80	81 10.0	89 11.5	95 12.6									

68,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	2" RH	3" RH	4" RH	5" RH	6" RH	8" RH	10" RH	12" RH	14" RH	16" RH	18" RH	20" RH	24" RH	30" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
100	3170	-628															
110	2620	-428															
120	2200	-302															
130	1870	-221															
140	1615	-163	81 8.80	89 10.5	95 11.8	101 13.0	108 14.6	113 16.1	118 17.2	130 20.6	143 23.0	155 26.8	167 31.0				
150	1405	-123	71 7.80	78 9.00	83 9.97	90 11.7	96 13.2	102 14.7	109 15.9	123 19.5	135 23.0						
160	1232	-095	61 6.80	68 8.20	75 9.60	83 10.6	89 12.4	95 13.8	102 15.6	116 19.5							
170	1095	-075	54 5.60	62 7.40	69 9.00	76 10.6	84 11.7										

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S.

FANS

CYCLONE

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

72,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
110	2780	.482									180	28.3	185	29.6	190	30.6	200	33.8	208	35.9	216	39.3	226	42.2	243	47.8	261	53.5			
120	2325	.338						137	19.5	142	21.0	147	22.7	153	23.8	158	25.6	168	28.4	177	30.4	186	34.0	196	36.8	216	43.0	236	50.0		
130	1980	.245			108	14.1	114	15.5	120	17.1	126	18.5	131	20.2	136	21.4	146	24.1	156	27.5	166	30.4	179	34.0	199	41.3	221	48.7			
140	1706	.182	84	10.2	91	11.6	97	12.7	103	14.8	109	16.1	114	17.2	120	18.6	131	21.6	143	25.0	154	28.6	167	32.8	189	41.3					
150	1485	.138	73	8.80	80	10.0	85	11.2	91	13.2	98	14.4	104	15.8	109	17.3	122	20.7	134	23.1	146	28.6									
160	1308	.107	63	7.50	70	8.90	76	10.0	83	11.4	89	13.0	95	14.8	102	16.6	115	20.7													
170	1160	.084	55	6.50	62	8.40	70	9.80	77	11.2	84	12.9																			
180	1033	.067	50	5.60	57	7.20	65	9.20	70	11.0																					

76,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	2930	.536																												
120	2450	.375																												
130	2085	.272																												
140	1802	.204	87	11.6	95	13.3	100	14.8	105	16.1	112	17.7	117	19.0	123	20.4	133	24.1	143	27.0	155	30.6	166	34.8	188	43.6				
150	1570	.154	75	9.62	82	11.4	87	12.7	93	14.2	100	16.0	105	17.6	110	18.8	122	22.4	133	25.6	145	30.1								
160	1380	.119	65	8.60	72	9.70	78	11.0	84	12.6	90	14.4	96	16.2	102	17.6	115	21.8												
170	1220	.093	57	7.45	64	9.24	71	10.7	77	11.8	84	14.0	90	15.4	97	17.4														
180	1090	.074	51	6.20	58	8.20	65	10.0	72	11.8																				

80,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3085	.595																												
120	2590	.420																												
130	2200	.302																												
140	1898	.225																												
150	1650	.170	78	10.8	85	12.6	89	14.0	95	15.8	101	17.5	106	19.0	112	20.4	122	23.9	133	27.4	145	31.6	156	36.5						
160	1455	.132	67	9.60	73	11.0	79	12.2	85	13.8	91	15.8	97	17.4	102	19.0	114	23.0	126	26.9										
170	1290	.104	59	8.35	65	10.0	72	11.2	78	12.7	84	14.6	90	16.8	96	18.6														
180	1152	.083	52	7.16	59	9.24	66	11.0	72	12.6	79	14.6																		

84,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		12" RH		14" RH		16" RH		18" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3250	.660																												
120	2715	.460																												
130	2310	.332																												
140	1992	.249																												
150	1740	.189	80	12.2	87	14.0	91	15.4	97	17.5	103	19.1	107	20.4	113	22.0	122	25.7	133	29.4	144	33.5	155	38.4	176	48.2				
160	1522	.145	69	10.5	76	12.1	81	13.5	87	15.6	91	17.1	98	18.8	102	20.4	114	24.4	125	28.1	136	33.4								
170	1350	.114	60	9.20	67	10.8	72	12.0	79	13.8	85	15.7	90	17.9	96	19.5	108	24.0												
180	1210	.091	53	8.10	59	10.1	66	11.9	72	13.0	79	15.4	85	16.8	91	19.3														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

88,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3400	.721																		
120	2842	.505																		
130	2420	.366																		
140	2085	.271																		
150	1820	.206	83	13.7	90	15.7	94	17.4	99	18.9	105	21.0	109	22.4	114	24.0	123	28.2	133	31.7
160	1600	.160	71	11.3	77	13.4	82	15.2	88	16.5	94	18.8	99	20.7	103	22.1	114	26.2	125	29.8
170	1415	.127	62	10.3	68	11.8	73	13.1	79	15.3	85	17.2	90	19.0	96	20.6	108	25.2	119	29.8
180	1264	.100	55	8.90	61	10.8	67	12.2	73	13.7	79	16.0	85	18.0	90	20.3				

92,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
120	2975	.552																		
130	2525	.400																		
140	2180	.296																		
150	1900	.225																		
160	1680	.176	73	12.6	79	14.6	84	16.0	90	18.2	96	20.2	100	21.8	105	23.6	115	27.4	125	31.6
170	1480	.137	63	11.3	70	12.8	75	14.2	80	16.7	87	18.3	92	20.2	96	22.0	107	26.4	118	30.8
180	1320	.109	56	9.80	62	11.5	68	12.8	74	14.8	79	16.8	85	19.2	90	21.2	102	26.4		

96,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
120	3100	.600																		
130	2640	.435																		
140	2268	.321																		
150	1985	.246																		
160	1740	.189	75	14.0	81	16.1	86	17.7	91	20.0	96	21.9	101	23.4	106	25.2	115	29.6	125	33.7
170	1550	.150	66	12.1	72	14.1	77	15.9	82	17.9	87	19.9	92	21.9	96	23.6	107	28.1	118	32.3
180	1380	.119	57	10.8	63	12.5	69	13.9	74	16.3	80	18.3	85	20.4	90	22.2	102	27.5	113	32.7

100,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
120	3230	.650																		
130	2750	.482																		
140	2370	.350																		
150	2075	.269																		
160	1820	.206	77	15.6	83	17.7	88	19.7	92	21.4	98	23.7	102	25.3	107	27.0	116	31.0	125	35.6
170	1610	.162	67	13.0	73	15.4	78	17.3	83	18.8	88	21.4	93	23.5	97	25.1	107	29.8	118	33.8
180	1430	.128	59	11.8	65	13.5	70	15.0	75	17.6	81	19.6	86	21.7	91	23.5	102	28.6	112	33.7

S·S
FANS

CYCLONE

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

108,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
130	2970	-550														
140	2580	-416														
150	2225	-309														
160	1955	-238														
170	1740	-189	71	16.0	77	18.3	81	20.2	85	22.6	91	24.8	95	26.6	100	28.5
180	1552	-150	62	13.5	67	15.8	72	17.6	77	20.0	82	22.0	87	24.5	91	26.4

116,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
130	3190	-635														
140	2750	-482														
150	2395	-358														
160	2110	-278														
170	1865	-217														
180	1665	-173	64	16.0	70	18.4	74	20.3	79	22.4	84	25.5	88	27.5	92	29.7

128,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
140	3050	-580														
150	2645	-437														
160	2325	-338														
170	2055	-265														
180	1838	-211														

144,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
150	2975	-552														
160	2620	-429														
170	2320	-336														
180	2070	-268														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

S.S. MULTIVANE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

160,000 C.F.M.

PERFORMANCE TABLES

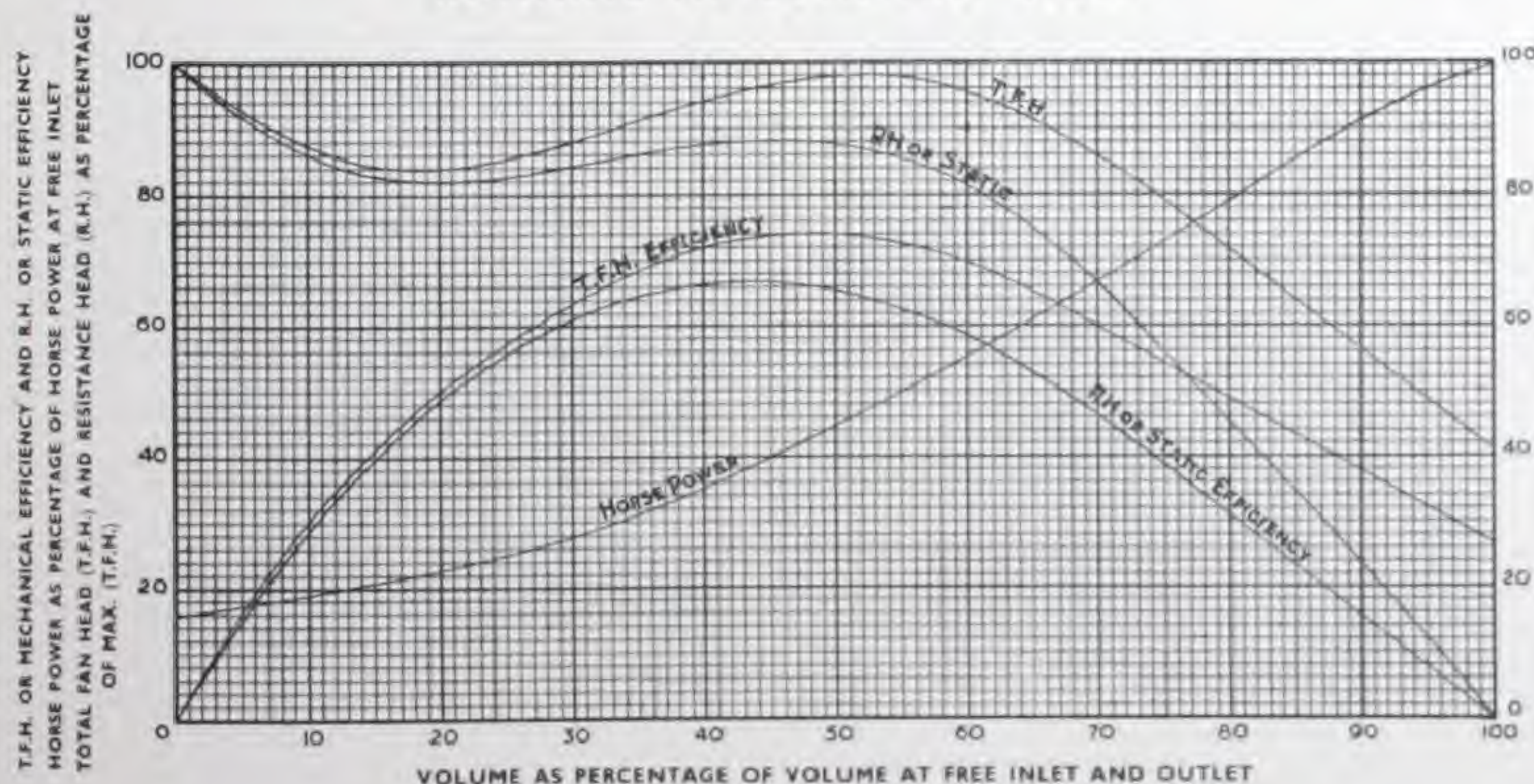
SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/2" RH		3" RH			
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
150	3210	643							156	87.0	162	94.3	167	100.5	173	106.5		
160	2915	530						132	71.0	135	75.0	143	81.5	147	88.0	154	92.8	
170	2580	416					107	53.5	112	57.3	115	60.4	118	63.5	125	70.3	131	74.5
180	2300	330			90	42.7	94	46.0	98	49.6	102	52.0	105	56.0	112	61.6	118	69.6
															125	76.8	131	84.0
															144	98.4	157	114.0

176,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/2" RH		3" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
160	3200	640							139	88.4	142	91.6	149	99.2	153	106.0
170	2830	500							121	75.3	125	77.5	131	85.6	136	91.0
180	2525	400							100	57.6	103	60.8	107	64.8	110	68.4

CHARACTERISTIC CURVES DERIVED FROM TESTS OF S.S. MULTIVANE FAN RUNNING AT CONSTANT SPEED



For dimension sheets see pages 76 to 90.

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

SPECIAL SERIES **SMALL S.S. MULTIVANE FANS**

SPECIAL attention is called to this group of small Fans. They are similar in characteristics to the "S.S." Type Ventilating Fan. Designed for quiet operation, they have low peripheral speeds and outlet velocities. These Fans are ideal for:—

- All small Ventilating projects.
- The supply of fresh air.
- Forced Draught in connection with small Heating Plant.
- The removal of fumes from process work, chemical laboratories, etc.

The Fans are suitable for any arrangement of drive; the standard is fitted with a bracket adaptable for either ball bearings or a double sleeve bush bearing—where not specified the double sleeve bush bearing will be supplied. A Motor bracket is substituted when direct motor-driven sets are necessary.

The scroll casing is carried on cast iron side frames and can be assembled to discharge in any direction either right or left hand.

In the preparation of these Fans the following uses have had primary consideration:—

- Ventilation and supply of fresh air to
Flats, Offices, Staterooms,
Telephone Booths, Vaults, Toilets and the like.
- Small Cooling and Drying Installations.
- Forced Draught for Automatic Stokers.

They are excellently suited for the collection of light dust and can, in fact, be used most successfully wherever small volumes of air or gas fumes are to be handled at comparatively low pressures.



MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CFM	Outlet Velocity ft. per min.
150	700
200	935
250	1168
300	1400
350	1634
400	1870
450	2100
500	2335
550	2570
600	2800
650	3040

CFM	Outlet Velocity ft. per min.
200	398
250	748
300	894
350	1047
400	1195
500	1495
600	1795
700	2092
800	2392
900	2692
1000	2992

S·S
FANS

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH

CFM	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		6" RH		8" RH		10" RH			
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
200	598	.022	708	.01	889	.02																						
250	748	.035	724	.01	867	.02																						
300	899	.050	762	.02	882	.03	999	.04	1122	.05																		
350	1047	.068	817	.03	920	.04	1022	.05	1120	.06	1225	.07																
400	1195	.089	881	.04	969	.05	1060	.06	1145	.07	1240	.08	1321	.09	1417	.11												
500	1495	.139	1010	.06	1090	.07	1164	.08	1231	.10	1310	.11	1375	.13	1448	.14	1588	.17										
600	1795	.200	1141	.09	1220	.11	1282	.12	1351	.13	1411	.15	1468	.17	1525	.18	1642	.21	1764	.25	1877	.29	1998	.34	2244	.43		
700	2092	.273	1279	.13	1358	.15	1419	.17	1481	.19	1540	.21	1592	.22	1634	.24	1732	.27	1840	.32	1939	.35	2044	.39	2240	.49	2450	.61
800	2392	.356	1432	.19	1490	.21	1555	.23	1601	.26	1662	.28	1712	.29	1762	.31	1850	.35	1938	.39	2021	.43	2120	.48	2290	.57	2480	.67
900	2692	.451			1638	.28	1681	.30	1749	.33	1799	.35	1845	.38	1897	.41	1978	.45	2056	.49	2133	.53	2210	.58	2371	.68	2522	.77
1000	2992	.557					1848	.40	1878	.42	1910	.45	1972	.48	2020	.51	2104	.55	2180	.60	2260	.65	2328	.70	2462	.79	2620	.92

Page 31

S.S. FANS. Special Series for Small Volumes

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH

No. 15 S.S. FAN

CFM	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
400	832	043	619 .03	735 .04	834 .05	945 .07											
500	1036	067	680 .04	764 .05	850 .06	932 .08	1021 .11										
600	1242	097	753 .06	824 .07	894 .09	964 .10	1037 .13	1107 .14	1178 .16								
700	1450	131	826 .08	896 .10	955 .11	1016 .13	1077 .15	1137 .17	1199 .19	1325 .25							
800	1664	172	904 .11	970 .13	1027 .15	1069 .17	1130 .19	1182 .22	1238 .24	1348 .28	1451 .33	1560 .40					
900	1865	217	985 .14	1044 .17	1100 .21	1155 .22	1200 .24	1245 .26	1292 .29	1387 .33	1481 .38	1580 .44	1671 .50	1864 .67			
1000	2072	268	1067 .19	1121 .21	1178 .25	1229 .27	1275 .29	1314 .32	1360 .34	1442 .39	1529 .46	1611 .51	1699 .56	1870 .70	2042 .88		
1100	2284	326	1150 .24	1200 .27	1251 .30	1300 .33	1349 .36	1390 .39	1431 .41	1507 .46	1580 .51	1660 .59	1739 .65	1895 .79	2055 .92		
1200	2484	374	1236 .31	1282 .33	1331 .36	1279 .40	1421 .44	1462 .46	1506 .50	1572 .54	1648 .59	1718 .67	1788 .73	1928 .87	2074 1.03		
1300	2700	455	1322 .37	1369 .41	1410 .44	1458 .47	1500 .52	1538 .55	1580 .59	1651 .65	1719 .70	1781 .76	1848 .85	1976 .98	2107 1.14		
1400	2900	525	1409 .46	1454 .49	1490 .53	1531 .56	1575 .60	1615 .64	1652 .69	1725 .75	1791 .82	1855 .89	1910 .96	2032 1.10	2154 1.24		
1500	3120	608		1540 .59	1577 .63	1613 .67	1652 .70	1690 .74	1730 .80	1799 .89	1862 .95	1925 1.01	1995 1.06	2092 1.24	2205 1.40		
1600	3328	68			1662 .74	1699 .79	1731 .83	1770 .87	1808 .91	1875 1.01	1939 1.09	2000 1.16	2054 1.21	2138 1.38	2260 1.55		

No. 17 S.S. FAN

CFM	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH	1" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
600	912		349 .04	632 .06	715 .08	800 .10											
700	1068	071	591 .06	661 .07	732 .09	804 .12	872 .15										
800	1230	092	637 .08	697 .10	759 .12	822 .14	884 .16	946 .19	1010 .22								
900	1372	117	684 .10	743 .12	799 .15	852 .17	906 .19	964 .22	1018 .24	1128 .32							
1000	1522	144	730 .12	792 .15	832 .18	887 .20	927 .23	985 .25	1038 .28	1134 .34	1237 .42						
1100	1676	174	779 .15	831 .18	879 .22	932 .24	971 .26	1020 .30	1065 .33	1154 .38	1248 .45	1331 .52					
1200	1830	208	831 .19	884 .22	934 .26	978 .28	1018 .31	1058 .34	1098 .37	1180 .43	1264 .51	1348 .57	1430 .67	1600 .89			
1300	1980	244	876 .23	932 .27	980 .31	1024 .33	1060 .37	1100 .40	1136 .43	1214 .51	1289 .57	1367 .64	1441 .73	1595 .94			
1400	2135	284	935 .28	971 .31	1029 .37	1070 .39	1111 .42	1146 .46	1182 .49	1246 .57	1322 .63	1391 .72	1464 .81	1608 .98	1744 1.20		
1500	2282	325	985 .33	1029 .37	1078 .42	1119 .45	1158 .50	1194 .53	1229 .56	1282 .63	1358 .72	1420 .78	1488 .86	1622 1.07	1751 1.28		
1600	2440	371	1041 .39	1082 .43	1125 .48	1167 .52	1202 .57	1241 .60	1274 .65	1322 .73	1394 .79	1459 .90	1518 .96	1644 1.13	1768 1.34		
1700	2590	417	1098 .46	1140 .51	1173 .56	1213 .59	1249 .65	1287 .70	1322 .74	1382 .79	1441 .90	1499 .96	1540 1.07	1669 1.23	1790 1.41		
1800	2742	466	1148 .53	1191 .58	1222 .64	1268 .67	1301 .73	1339 .80	1368 .84	1421 .91	1486 .99	1540 1.08	1598 1.15	1704 1.34	1812 1.56		
2000	3030	579		1241 .77	1332 .80	1361 .85	1398 .91	1430 .97	1460 1.02	1521 1.15	1584 1.25	1625 1.33	1664 1.41	1774 1.61	1854 1.87		
2200	3335	699			1439 1.09	1471 1.11	1511 1.16	1532 1.21	1559 1.25	1618 1.42	1662 1.52	1726 1.62	1758 1.72	1864 1.93	1942 2.12		

For dimension sheet see page 88.

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H·S
FANS

HIGH SPEED CURVED BACK FANS



H.S.C.B. Fan, 20 to 60 Construction. Inlet Side.
Type R.3. Complete with Guide Vanes.
Arrangement No. 2.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H.S. CURVED BACK FANS
for
VENTILATION AND FORCED DRAUGHT

DURING the last few years this high speed full backward curve type Fan has received much attention from fan users, not the least reason being because it effects genuine economies in both first and operating costs. Less expensive Motors can be used and there is high efficiency over a wide performance range.

The outstanding characteristics of the full backward curve type fan is the steep pressure curve, the non-overloading power curve, and the high speed. This Fan operates at a peripheral speed of approximately double that of the forward curve Multivane type for like results. In spite of the relatively high speed, these Fans are quiet in operation.

The resistance head curve rises continuously from a wide open to a shut off condition, and is relatively steep, permitting only a small change in volume with liberal variations in the static pressure; and where wide fluctuations occur, this type of fan is desirable and prevents overloading of the Motors.

See Characteristic Curve, page 38.

This type of Fan with its high speed is especially adaptable for direct coupled Motor drive.

Fixed vanes are fitted in the inlet evase of this Fan, their inner diameter being a little less than the internal diameter of the impeller blades. The vanes are arranged to give an air flow in the direction of impeller rotation, before the air reaches that part of the revolving blades that projects down into the inlet.

The fixed vanes add to both efficiency and quiet running. They are completely housed in the evase cone, and do not in any way interfere with the inlet connections and ducting, or the placing of a bearing in the inlet when such becomes necessary.

Sturdy and dependable in construction, it is made in a range of sizes to cover every requirement encountered in air conditioning, and forced and induced draught.

Sizes 20 to 60 inclusive are built with a steel scroll, welded to steel side plates into which are fitted heavy cast iron side frames containing the inlet cone and bearing stool, ensuring perfectly rigid support to the impeller, shaft and bearings. The side frames allow the Fan to be fixed in any of eight directions of air discharge, either clockwise or counter-clockwise.

The openings in the Fan housing receiving the side frames are larger in diameter than the impeller and allow it to be easily removed from the housing for cleaning and inspection.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H·S
FANS

In the larger sizes 70 and upwards, the Fans are built to meet the requirements of the installation and the Fan housings are constructed entirely in heavy steel plate, rigidly braced by steel sections. The built-up structure supporting the bearings is given special consideration, and the vertical supports are taken down to the floor line.

All plates and sections of the Fan housings are rivetted and bolted together and the Fan housing can be so constructed that it may be easily taken apart to gain entrance to comparatively small openings. The Fan impeller cannot be dismantled for obvious reasons.

Where silence is essential, our patented **laminated casings** have proved very effective in stopping "drumming." In fact, in most instances where these particular casings have been adopted and the fans run at a reasonable speed, they could not be heard at all.



H.S. Curved Back Fan, 20 to 60 Construction. Inlet Side,
with Guide Vanes removed. Type R.3.

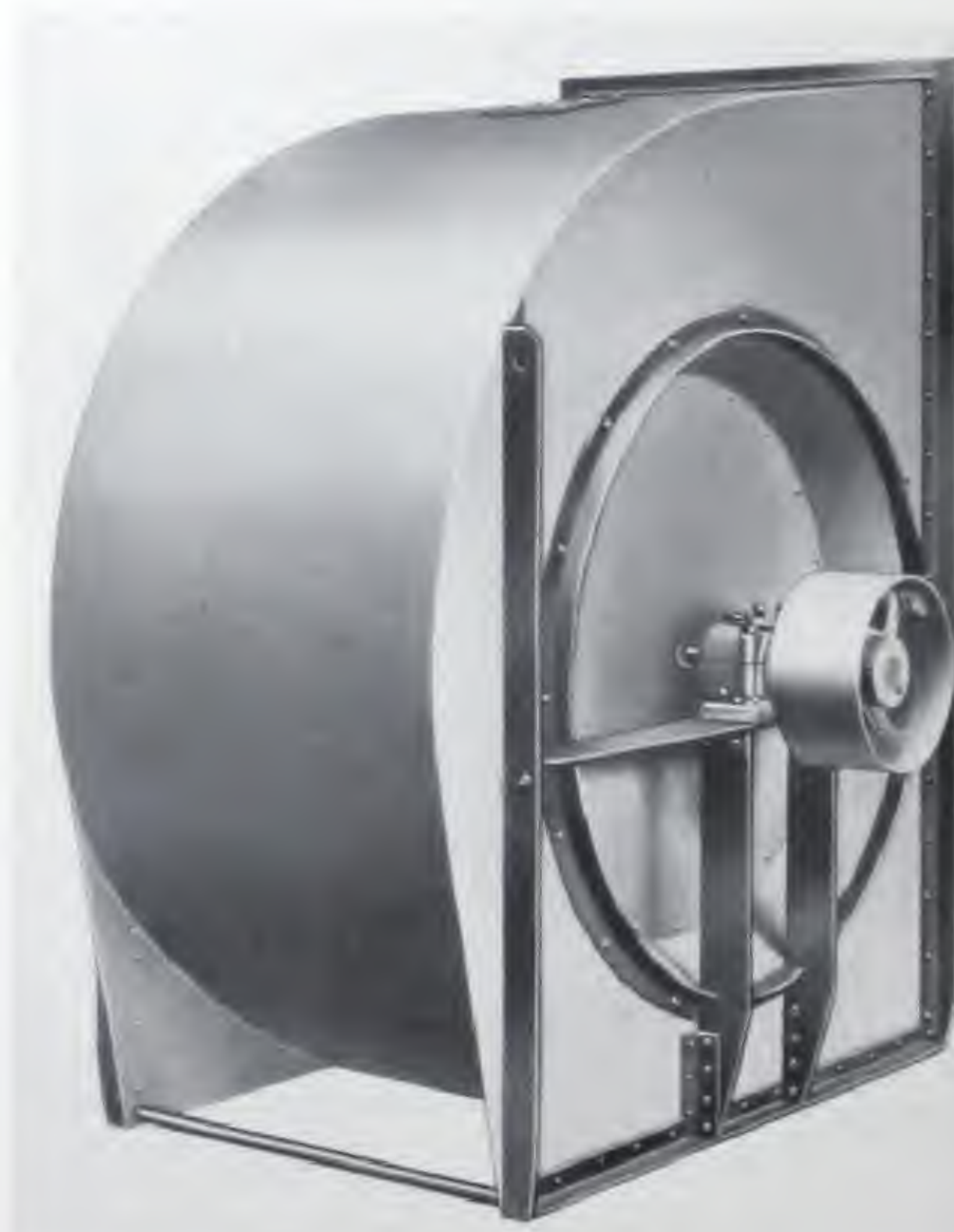
MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

The impeller is fitted according to Fan size with twelve or sixteen deep backward curved blades, the double-width double-inlet Fans each have two impellers of similar construction.

The Blades of the impeller are rivetted to substantial side rims. To obtain maximum rigidity and strength a central rim extends around and is let into the periphery of the blades to which it is electrically welded.

To the impeller hub, which is a steel alloy casting, is securely fixed six or eight mild steel rectangular section arms, the outer ends of which are rivetted to the central rim. Two intermediate rings extend around and are welded to the inside edges of the blades, making the whole into a single structure of great strength and lightness. The impeller is carefully and accurately balanced.



H.S.C.B. Fan with Babbitted Ring Oiling, self-aligning Bearings, Standard equipment. Construction of sizes 70 and upwards. Pulley Side.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

As this Fan is essentially a high-speed Fan, to obtain good results the high peripheral speed must be given the greatest consideration in the impeller design.

For this reason and to avoid the tendency to deformation, the impeller is driven through its centre of gravity, eliminating many of the stresses and running out of balance conditions that arise through and are incident to a backplate drive.

Bracing rods are not used or necessary in the H.S.C.B. impeller design. This is a notable feature. Bracing rods which excellently serve a purpose at lower speeds, are likely to vibrate and ultimately fracture at high speeds.

For the smaller Fan sizes, when the impeller is not directly keyed on the motorshaft, double row self-aligning ball bearings are usually fitted, but when silent ventilating work is the duty of the Fan, the Cyclone standard babbitted inner sleeve ring oiling bearing is best suited.



H.S.C.B. Impeller, 20 to 60 Construction.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

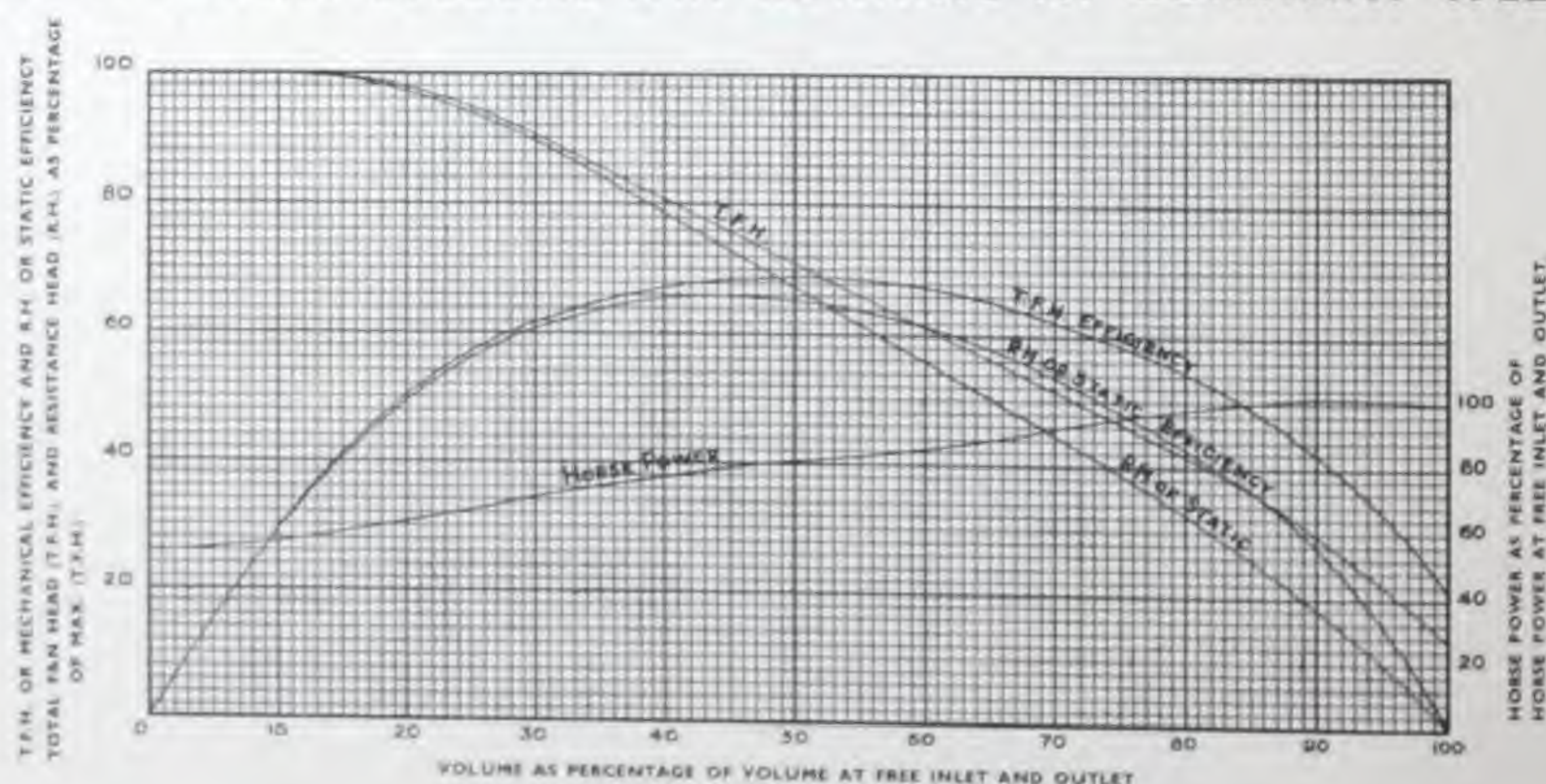
For Fans sizes 70 and upwards the Cyclone Standard babbitted inner sleeve ring oiling bearing is standard equipment. A Universal movement allows the inner sleeve to take up any position required in the shaft alignment, and the outer casing is designed to rest on four setscrews for easy height adjustment. The bearing is therefore self-aligning in all planes. A full description of this bearing is given in connection with S.S. Type Fans, page 10.

FAN SHAFT

The fan shaft is made from best quality steel bar accurately ground to size. Each shaft is properly proportioned to prevent whipping, and is of such a diameter that the first critical speed is not approached with the impeller running at maximum recommended speed.

It is generally allowed that the high speed curved back bladed fan calls for more attention and service than is usually required for the slower curved forward Multivane Fan and that its dimensional bulk for a given duty is considerably greater. The Cyclone H.S.C.B. Fan is designed to eliminate this difference. No extra attention need be given and no extra space is necessary for its installation.

CHARACTERISTIC CURVES DERIVED FROM TESTS UPON A No. 30 H.S.C.B. CYCLONE FAN RUNNING AT CONSTANT SPEED



MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE**HIGH SPEED CURVED BACK FAN****PERFORMANCE TABLES****Pages 40 to 75.**

TO enable the fan user quickly and accurately to find the fan he wishes to use, the performance tables are arranged in such a way that the several sizes of fans that will satisfactorily perform a given duty are grouped together under a specified air volume and it will be seen that the range covers practically any installation.

Generally the important factors in selecting fans for ventilating systems are efficiency and noise. First cost and space available are usually secondary.

If an efficient and quiet fan is the chief consideration, select the fan size that meets the requirement when operating at the highest point of efficiency.

If space or cost has to be considered it may become necessary to select a smaller fan, usually with a slightly lower efficiency.

The performance tables are based on the actual air delivered at the resistance head shown, and are computed from tests conducted strictly in accordance with the Test Code as set out by the "Fan Standardisation Committee".

The total fan head is readily obtained by adding to the resistance head the velocity head or pressure corresponding to the outlet velocity given in the third column.

For notes on "How to Select a Cyclone Fan," see pages 93 to 96.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

1,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1162	.071	1091	.102	1185	.124	1262	.151	1349	.178	1413	.200	1481	.226	1546	.250	1661	.302	1762	.356	1865	.415	1962	.475	2032	.54
25	746	.047	684	.07	769	.097	844	.125	910	.146	970	.174	1040	.202	1079	.23	1176	.306	1262	.354	1348	.43	1422	.504	1561	.63

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1162	.071	1960	.475	2122	.59	2280	.71	2425	.83	2560	.97	2680	1.11	2810	1.24	2922	1.39	3031	1.54	3150	1.68
25	746	.047	1422	.504	1561	.63	1689	.80	1811	.95	1925	1.13	2032	1.29	2136	1.48	2236	1.66	2325	1.86	2418	2.05

1,250 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1452	.132	1271	.17	1360	.196	1425	.227	1500	.254	1564	.29	1628	.32	1692	.35	1801	.405	1905	.47	2000	.54	2032	.54	2136	.63
25	932	.054	766	.104	849	.132	919	.167	985	.195	1041	.22	1095	.258	1147	.29	1240	.37	1326	.44	1409	.52	1422	.504	1561	.63

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1452	.132	2089	.61	2250	.74	2410	.88	2548	1.02	2680	1.18	2807	1.33	2925	1.50	3040	1.66	3147	1.82	3260	1.98
25	932	.054	1482	.60	1616	.76	1747	.93	1864	1.10	1972	1.30										

1,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1742	.190	1481	.266	1550	.30	1605	.33	1669	.37	1729	.405	1789	.44	1848	.47	1950	.54	2032	.61	2141	.69	2032	.54	2141	.69
25	1120	.078	819	.146	925	.180	995	.216	1055	.258	1112	.285	1164	.33	1217	.36	1309	.45	1392	.53	1471	.61	1422	.504	1561	.63
30	775	.038	582	.11	652	.15	716	.19	768	.22	817	.26	862	.30	908	.35	989	.45	1060	.53						

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1742	.190	2228	.78	2389	.96	2542	1.09	2680	1.25	2810	1.43	2934	1.60	3043	1.79	3161	1.97	3270	2.14	3378	2.31
25	1120	.078	1547	.71	1679	.88	1803	1.07	1920	1.25	2028	1.46										

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

**H·S
FANS**

H.S. CURVED BACK FANS

PERFORMANCE TABLES

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

1,750 C.F.M.

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2032	.257			1757	.43	1802	.47	1859	.51	1910	.56	1967	.60	2020	.64	2115	.71	2210	.80	2302	.89								
25	1302	.106	938	.21	1017	.24	1072	.28	1138	.33	1190	.38	1246	.42	1306	.46	1385	.55	1467	.64	1545	.74								
30	904	.051	630	.14	698	.18	757	.23	810	.27	858	.31	904	.36	946	.41	1028	.51	1099	.61	1167	.72								

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2032	.257	2381	.97	2540	1.16	2695	1.34	2820	1.53	2958	1.71	3072	1.90	3190	2.12	3300	2.32	3410	2.52	3518	2.70
25	1302	.106	1614	.84	1747	1.02	1872	1.23	1988	1.44	2092	1.66	2190	1.90	2286	2.14						
30	904	.051	1229	.85																		

2,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2325	.337			2000	.64	2041	.69	2090	.74	2139	.78	2187	.83	2277	.92	2371	1.01	2458	1.11										
25	1490	.139	1036	.28	1105	.33	1160	.38	1219	.42	1270	.47	1320	.52	1369	.56	1459	.66	1518	.76	1615	.87								
30	1035	.067	678	.18	742	.23	801	.27	852	.33	900	.37	948	.43	989	.48	1068	.60	1138	.70	1204	.82								

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2325	.337	2535	1.21	2690	1.41	2840	1.61	2960	1.81	3090	2.03	3210	2.24	3322	2.47	3430	2.69	3533	2.91	3640	3.11
25	1490	.139	1685	.98	1813	1.19	1940	1.42	2052	1.63	2160	1.89	2256	2.14	2353	2.40	2446	2.64	2529	2.90	2624	3.14
30	1035	.067	1266	.95	1377	1.19	1482	1.45	1580	1.70												

2,250 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2614	.427			2242	.92	2288	.97	2310	1.02	2370	1.08	2452	1.18	2541	1.28	2635	1.38												
25	1676	.176	1162	.37	1210	.43	1255	.48	1308	.53	1356	.59	1407	.65	1452	.70	1535	.80	1618	.91	1690	1.03								
30	1165	.085	728	.23	791	.28	844	.34	899	.40	943	.45	989	.51	1030	.56	1109	.69	1177	.80	1242	.92								

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2614	.427	2699	1.50	2844	1.71	2990	1.93	3110	2.17	3232	2.37	3354	2.64	3465	2.89	3570	3.12	3674	3.36	3780	3.58
25	1676	.176	1758	1.15	1888	1.38	2012	1.63	2121	1.88	2228	2.15	2332	2.40	2420	2.69	2510	2.96	2600	3.23	2690	3.48
30	1165	.085	1306	1.07	1413	1.32	1520	1.60	1615	1.87	1706	2.19										

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H·S
FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM
BAROMETRIC PRESSURE 30" Hg.

2,500 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2920	534											2522	1.30	2558	1.35	2630	1.45	2714	1.56	2787	1.68		
25	1860	216			1310	54	1347	60	1392	65	1440	72	1489	78	1530	83	1615	94	1692	1.07	1765	1.19		
30	1286	101	780	30	843	35	891	41	942	47	990	54	1032	60	1075	65	1151	78	1219	91	1283	1.05		
35	950	056	552	20	612	27	662	34	708	39	748	46	788	52	824	58	892	75	954	87	1011	1.02		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	2920	534	2860	1.81	3005	2.04	3138	2.29	3258	2.52	3380	2.80	3500	3.05	3606	3.33	3708	3.58	3816	3.85	3918	4.08
25	1860	216	1832	1.33	1962	1.58	2082	1.84	2190	2.11	2298	2.40	2390	2.67	2484	2.99	2578	3.28	2660	3.57	2750	3.85
30	1286	101	1342	1.20	1450	1.47	1558	1.76	1652	2.06	1742	2.38	1824	2.73								
35	950	056	1065	1.19	1160	1.49	1251	1.83	1335	2.17	1411	2.57										

2,750 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1200	640											2740	1.64	2762	1.70	2824	1.82	2900	1.94	2972	2.06		
25	2050	261			1402	68	1442	73	1484	80	1530	87	1573	94	1612	1.00	1691	1.11	1770	1.25	1840	1.39		
30	1420	126	835	36	894	42	940	49	990	55	1033	62	1078	70	1119	76	1193	90	1260	1.03	1323	1.18		
35	1045	068	585	26	642	32	689	38	736	46	775	50	815	59	851	65	916	81	977	95	1037	1.13		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	3200	640	3040	2.21	3180	2.47	3310	2.75	3422	3.01	3540	3.29	3660	3.58	3764	3.86	3864	4.14	3964	4.42	4070	4.69
25	2050	261	1905	1.53	2032	1.81	2155	2.10	2258	2.40	2362	2.67	2460	2.98	2551	3.31	2640	3.61	2722	3.91	2810	4.21
30	1420	126	1382	1.34	1490	1.62	1596	1.95	1691	2.25	1780	2.60	1860	2.95	1941	3.30	2019	3.67	2090	4.04	2167	4.37
35	1045	068	1090	1.30	1184	1.63	1275	1.97	1358	2.34	1436	2.74	1510	3.15	1578	3.51						

3,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2230	110							1549	92	1585	97	1628	1.06	1669	1.13	1709	1.19	1780	1.32	1857	1.46	1927	1.61
30	1550	150	895	45	951	51	992	59	1040	65	1081	73	1125	80	1162	86	1238	1.01	1303	1.16	1366	1.32		
35	1140	081	674	30	671	36	716	43	763	51	802	58	840	66	878	73	945	90	1005	1.06	1060	1.22		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2230	110	1988	1.77	2112	2.06	2232	2.37	2335	2.68	2440	3.01	2536	3.34	2624	3.68	2700	4.01	2794	4.35	2880	4.66
30	1550	150	1425	1.50	1532	1.80	1637	2.14	1730	2.46	1819	2.83	1899	3.20	1978	3.58	2055	3.96	2127	4.34	2203	4.69
35	1140	081	1115	1.43	1207	1.77	1288	2.12	1380	2.50	1458	2.92	1529	3.33	1599	3.74						

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

3,250 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2415	·365											1683	1·18	1720	1·26	1756	1·33	1792	1·40	1862	1·56	1940	1·71	2006	1·87
30	1680	·176	958	·54	1008	·62	1046	·69	1090	·76	1130	·85	1171	·92	1210	1·00	1281	1·15	1348	1·31	1409	1·48	1486	1·66	1549	1·84
35	1235	·095	648	·35	704	·43	746	·52	791	·60	832	·68	869	·76	906	·84	972	1·02	1032	1·17	1086	1·36	1144	1·54	1206	1·73
40	945	·056	483	·26	534	·35	578	·44	616	·53	654	·61	688	·68	720	·76	780	·98	833	1·14	885	1·33	944	1·54	1006	1·75

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2415	.365	2068	2.03	2190	2.36	2309	2.67	2408	3.00	2511	3.37	2606	3.69	2696	4.06	2776	4.41	2862	4.77	2946	5.08
30	1680	.176	1466	1.66	1572	1.98	1678	2.35	1770	2.70	1859	3.09	1938	3.46	2017	3.88	2092	4.26	2162	4.65	2240	5.02
35	1235	.095	1140	1.55	1232	1.91	1323	2.31	1406	2.70	1480	3.13										
40	945	.056	931	1.56	1016	1.95																

3,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2607	·425													1825	1·50	1860	1·58	1890	1·66	1960	1·82	2032	1·98	2094	2·14
30	1810	·205	1023	·66	1065	·74	1100	·82	1141	·89	1180	·97	1220	1·06	1256	1·14	1325	1·30	1391	1·47	1451	1·65	1512	1·83	1574	2·01
35	1330	·111	681	·42	736	·50	776	·58	821	·68	861	·76	897	·86	933	·92	997	1·10	1055	1·29	1112	1·47	1172	1·66	1234	1·85
40	1018	·065	503	·30	555	·39	596	·48	636	·57	672	·64	707	·74	737	·83	797	1·04	850	1·22	900	1·42	954	1·62	1012	1·82

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2607	·425	2155	2·32	2274	2·66	2382	3·00	2482	3·37	2584	3·75	2680	4·10	2774	4·49	2855	4·85	2940	5·23	3020	5·56
30	1810	·205	1510	1·85	1617	2·20	1719	2·57	1809	2·95	1895	3·35	1976	3·73	2054	4·19	2130	4·59	2200	5·00	2275	5·37
35	1330	·111	1162	1·69	1255	2·07	1348	2·48	1428	2·88	1502	3·32	1572	3·81								
40	1018	·065	946	1·67	1030	2·08	1109	2·52														

3,750 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2780	·482															1958	1·85	1986	1·94	2042	2·10	2114	2·26	2181	2·43
30	1940	·235															1270	1·21	1304	1·30	1372	1·45	1438	1·65	1498	1·83
35	1427	·127	718	·50	770	·58	807	·68	849	·76	888	·86	925	·95	960	1·03	1025	1·22	1082	1·41	1138	1·62	1198	1·83	1262	2·04
40	1090	·074	525	·36	572	·44	615	·53	654	·64	690	·73	722	·82	756	·91	814	1·14	867	1·31	916	1·53	970	1·75	1028	1·97

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2780	·482	2234	2·62	2351	2·98	2462	3·36	2560	3·73	2659	4·13	2754	4·51	2843	4·92	2922	5·31	3010	5·70	3090	6·06
30	1940	·235	1552	2·05	1660	2·42	1760	2·80	1850	3·20	1938	3·63	2016	4·03	2093	4·51	2169	4·93	2240	5·37	2311	5·76
35	1427	·127	1188	1·84	1280	2·23	1370	2·65	1454	3·07	1529	3·55	1596	4·03	1667	4·51						
40	1090	·074	963	1·78	1045	2·22	1125	2·68														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H·S FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

4,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2977	·522													2030	2·16	2086	2·25	2139	2·41	2204	2·58	2268	2·76
30	2070	·268			1182	1·01	1215	1·09	1249	1·18	1283	1·28	1321	1·37	1355	1·47	1420	1·64	1483	1·84	1542	2·04		
35	1522	·145	755	·58	806	·67	841	·76	884	·86	918	·96	957	1·06	990	1·15	1055	1·33	1110	1·55	1164	1·77		
40	1165	·085	545	·40	592	·50	632	·60	674	·71	706	·80	740	·90	778	·99	831	1·21	881	1·42	932	1·65		
45	920	·053	424	·31	469	·40	508	·51	544	·61	575	·72	606	·83	635	·92	688	1·19	736	1·40	783	1·64		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	2977	·522	2320	2·98	2436	3·35	2542	3·76	2640	4·14	2735	4·56	2830	4·97	2920	5·36	2998	5·80	3079	6·21	3162	6·62
30	2070	·268	1596	2·25	1702	2·65	1803	3·07	1891	3·49	1978	3·92	2057	4·35	2134	4·85	2207	5·28	2278	5·75	2350	6·16
35	1522	·145	1216	1·98	1306	2·39	1396	2·85	1477	3·31	1550	3·81	1620	4·28	1690	4·80	1758	5·30	1818	5·82	1882	6·30
40	1165	·085	980	1·90	1061	2·36	1140	2·84	1212	3·32	1280	3·88	1340	4·44	1405	4·96						
45	920	·053	822	1·91	896	2·43	968	2·96	1032	3·52	1092	4·15										

4,250 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	3170	·630													2164	2·50	2188	2·58	2239	2·76	2295	2·96	2357	3·15
30	2200	·302			1244	1·16	1272	1·26	1304	1·35	1339	1·46	1372	1·56	1407	1·65	1469	1·84	1532	2·05	1590	2·26		
35	1618	·164	794	·66	841	·76	876	·86	915	·95	949	1·07	986	1·17	1018	1·28	1081	1·47	1137	1·69	1190	1·91		
40	1232	·095	570	·49	615	·60	652	·71	692	·81	727	·92	761	1·05	793	1·14	850	1·39	904	1·61	952	1·86		
45	978	·060	437	·36	482	·47	521	·58	554	·68	587	·79	618	·90	645	1·01	699	1·26	746	1·48	792	1·73		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	3170	·630	2410	3·36	2520	3·78	2628	4·20	2720	4·61	2818	5·03	2914	5·46	3000	5·92	3079	6·35	3158	6·78	3232	7·20
30	2200	·302	1641	2·48	1748	2·91	1847	3·35	1931	3·77	2020	4·24	2097	4·68	2174	5·20	2247	5·65	2318	6·15	2389	6·57
35	1618	·164	1241	2·14	1331	2·59	1420	3·05	1500	3·50	1577	4·02	1643	4·51	1711	5·06	1778	5·60	1830	6·12		
40	1232	·095	997	2·14	1078	2·60																
45	978	·060	832	2·02	907	2·60																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. CUR
STANDARD
BAROMETR

Fan Size	Outlet Velocity ft. per min.
25	3350
30	2323
35	1710
40	1307
45	1032

Fan Size	Outlet Velocity ft. per min.
25	3350
30	2323
35	1710
40	1307
45	1032

Fan Size	Outlet Velocity ft. per min.
30	2450
35	1805
40	1380
45	1093

Fan Size	Outlet Velocity ft. per min.
30	2450
35	1805
40	1380
45	1093

MATTH

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

4,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	3350	·700																						
30	2323	·338					1332	1·45	1361	1·55	1395	1·66	1426	1·76	1460	1·86	1518	2·07	1581	2·28	1639	2·50		
35	1710	·183	837	·77	877	·88	910	·98	946	1·08	980	1·21	1012	1·30	1049	1·40	1108	1·61	1165	1·83	1218	2·07		
40	1307	·106	587	·53	636	·64	671	·74	711	·87	744	·98	778	1·08	809	1·19	865	1·42	916	1·65	966	1·88		
45	1032	·066	453	·40	494	·52	534	·63	568	·74	600	·84	632	·97	658	1·08	712	1·35	758	1·57	804	1·84		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25	3350	·700	2510	3·86	2612	4·26	2715	4·69	2810	5·12	2898	5·58	2991	6·04	3082	6·51	3160	6·95	3240	7·41	3322	7·86
30	2323	·338	1689	2·73	1792	3·18	1890	3·63	1973	4·07	2060	4·57	2139	5·05	2219	5·56	2285	6·05	2364	6·55	2428	7·00
35	1710	·133	1267	2·32	1358	2·79	1449	3·26	1528	3·74	1600	4·30	1669	4·80	1738	5·37	1804	5·92	1862	6·46	1929	6·95
40	1307	·106	1010	2·15	1092	2·63	1171	3·16	1242	3·68	1309	4·26										
45	1032	·066	844	2·14																		

4,750 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	2450	·375							1396	1·65	1420	1·76	1451	1·87	1481	1·98	1510	2·09	1570	2·31	1632	2·53	1688	2·75
35	1805	·204	878	·88	914	·99			943	1·10	979	1·21	1011	1·33	1046	1·44	1077	1·56	1137	1·77	1194	2·00	1245	2·24
40	1380	·119	615	·60	660	·71			695	·82	732	·94	765	1·06	799	1·17	828	1·30	885	1·53	936	1·77	984	2·04
45	1093	·075	465	·45	511	·56			547	·67	573	·81	613	·92	644	1·03	670	1·17	724	1·44	771	1·67	815	1·93

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	2450	·375	1737	2·98	1839	3·46	1936	3·94	2019	4·41	2102	4·95	2180	5·42	2258	5·96	2327	6·46	2397	6·98	2468	7·43
35	1805	·204	1293	2·52	1384	2·99	1472	3·48	1550	4·02	1624	4·56	1692	5·08	1759	5·70	1825	6·25	1885	6·80	1949	7·32
40	1380	·119	1029	2·31	1110	2·81	1189	3·34	1260	3·88	1326	4·50	1389	5·10								
45	1093	·075	855	2·25	928	2·81	1000	3·40														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

5,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	2590	·420							1480	1·98	1508	2·12	1537	2·22	1564	2·33	1620	2·57	1682	2·79	1735	3·03		
35	1900	·226			949	1·12	977	1·22	1010	1·32	1043	1·45	1078	1·58	1108	1·70	1168	1·90	1221	2·14	1270	2·40		
40	1455	·131	635	·68	680	·78	712	·88	750	1·01	782	1·16	814	1·28	846	1·40	900	1·62	952	1·88	1000	2·16		
45	1150	·082	480	·52	524	·61	560	·74	596	·85	626	·99	655	1·12	684	1·24	736	1·50	782	1·77	825	2·04		
50	931	·054	383	·41	424	·52	459	·66	492	·78	520	·88	547	1·03	573	1·16	620	1·48	663	1·76	704	2·08		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	2590	·420	1783	3·27	1892	3·76	1980	4·25	2060	4·77	2145	5·32	2224	5·80	2300	6·38	2368	6·89	2438	7·43	2508	7·90
35	1900	·226	1320	2·68	1410	3·18	1498	3·69	1575	4·24	1650	4·81	1718	5·32	1786	5·99	1848	6·52	1911	7·10	1971	7·65
40	1455	·131	1044	2·44	1125	2·96	1205	3·52	1274	4·08	1340	4·72	1403	5·32	1462	6·00						
45	1150	·082	867	2·36	940	2·95	1010	3·53														
50	931	·054	741	2·40																		

5,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	2840	·505													1630	2·66	1652	2·77	1678	2·91	1726	3·15	1782	3·37
35	2085	·271			1024	1·41	1050	1·52	1081	1·64	1110	1·79	1140	1·90	1170	2·04	1225	2·28	1280	2·56	1330	2·85		
40	1600	·160	690	·85	730	·98	762	1·10	796	1·22	826	1·38	859	1·51	895	1·63	942	1·90	991	2·17	1040	2·45		
45	1260	·099	512	·62	552	·76	587	·89	622	1·00	653	1·17	683	1·31	710	1·43	760	1·71	806	2·00	850	2·28		
50	1028	·066	406	·50	445	·61	480	·74	512	·88	540	1·00	567	1·16	592	1·30	640	1·63	681	1·91	721	2·22		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	2840	·505	1882	3·92	1980	4·43	2070	4·98	2151	5·52	2232	6·11	2312	6·67	2388	7·28	2452	7·84	2521	8·41	2590	8·94
35	2085	·271	1375	3·13	1470	3·67	1555	4·25	1625	4·83	1700	5·41	1770	6·00	1840	6·70	1900	7·28	1960	7·93	2020	8·50
40	1600	·160	1080	2·77	1160	3·32	1240	3·95	1310	4·55	1375	5·23	1435	5·87	1495	6·58	1555	7·27	1605	7·93		
45	1260	·099	890	2·62	961	3·22	1033	3·87	1097	4·51	1157	5·24										
50	1028	·066	757	2·60	825	3·24																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

**H·S
FANS**

H.S. CURVED BACK FANS

PERFORMANCE TABLES

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

6,000 C.F.M.

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	3105	·603															1775	3·42	1795	3·55	1838	3·80	1888	4·06
35	2280	·325							1122	1·86	1150	1·99	1175	2·14	1206	2·28	1234	2·41	1288	2·68	1341	2·96	1390	3·26
40	1745	·190	740	1·06	775	1·20	802	1·32	834	1·48	864	1·62	894	1·76	924	1·88	975	2·16	1016	2·44	1070	2·76	1120	3·08
45	1380	·119	545	·77	586	·90	618	1·03	652	1·19	680	1·35	717	1·48	737	1·64	786	1·93	832	2·25	875	2·58	925	2·91
50	1120	·078	424	·58	462	·72	497	·86	527	1·03	556	1·14	582	1·32	608	1·44	654	1·80	696	2·12	735	2·44	775	2·76
55	925	·053	348	·50	385	·64	417	·80	447	·94	472	1·07	497	1·24	520	1·41	563	1·78	602	2·11	641	2·44	680	2·76

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	3105	·603	1983	4·67	2076	5·22	2163	5·82	2242	6·40	2321	7·02	2402	7·63	2475	8·26	2540	8·86	2608	9·48	2676	10·0
35	2280	·325	1431	3·58	1521	4·16	1608	4·78	1680	5·37	1752	6·04	1820	6·66	1888	7·36	1948	8·04	2002	8·70	2066	9·30
40	1745	·190	1114	3·12	1194	3·84	1271	4·30	1340	5·00	1405	5·72	1467	6·40	1521	7·16	1580	7·88	1635	8·56	1689	9·24
45	1380	·119	914	2·92	987	3·56	1055	4·28	1120	4·95	1180	5·70	1232									
50	1120	·078	773	2·84	839	3·52	901	4·28														

6,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	3370	·708															1920	4·27	1954	4·57	1998	4·88	2045	5·17
35	2470	·381							1220	2·45	1247	2·61	1271	2·74	1298	2·81	1350	3·21	1402	3·49	1448	3·82	1492	4·15
40	1890	·223	795	1·30	826	1·45	852	1·60	880	1·72	910	1·88	940	2·06	965	2·22	1015	2·49	1065	2·82	1110	3·13	1150	3·45
45	1492	·139	580	·92	619	1·08	650	1·23	678	1·37	708	1·55	735	1·71	765	1·84	812	2·16	855	2·52	900	2·83	945	3·15
50	1212	·092	448	·69	486	·83	516	1·00	548	1·16	576	1·30	610	1·47	626	1·61	675	1·99	716	2·30	755	2·66	795	3·02
55	1003	·063	353	·57	399	·73	431	·90	466	1·07	487	1·17	510	1·34	533	1·51	575	1·91	616	2·24	652	2·64	688	3·04

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30	3370	·708	2091	5·55	2179	6·13	2262	6·75	2340	7·37	2413	8·02	2494	8·69	2565	9·36						
35	2470	·381	1492	4·14	1578	4·79	1665	5·44	1730	6·10	1803	6·81	1873	7·48	1940	8·23	1995	8·90	2060	9·60	2120	10·2
40	1890	·223	1151	3·50	1232	4·16	1310	4·82	1375	5·55	1440	6·30	1500	6·96	1560	7·83	1616	8·55	1669	9·30	1723	10·0
45	1492	·139	940	3·20	1010	3·89	1080	4·63	1146	5·35	1202	6·16	1255	6·81	1309	7·80						
50	1212	·092	792	3·04	857	3·77	920	4·56	976	5·31												
55	1003	·063	685	3·08																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

7,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	2670	445											1300	2.91	1320	3.08	1344	3.24	1370	3.40	1412	3.72	1468	4.03
40	2030	257							878	1.72	901	1.88	929	2.04	955	2.24	983	2.40	1010	2.56	1057	2.84	1105	3.20
45	1608	161	614	1.08	652	1.26	677	1.42	708	1.58	735	1.75	764	1.93	789	2.09	838	2.41	883	2.79	924	3.15	972	3.56
50	1303	106	469	.84	508	.96	536	1.12	569	1.32	595	1.52	623	1.68	653	1.84	692	2.20	733	2.56	772	2.96	819	3.41
55	1080	073	379	.67	414	.84	445	1.00	474	1.17	500	1.34	524	1.51	547	1.67	591	2.11	627	2.48	664	2.85	711	3.36
60	904	051	315	.56	349	.72	378	.92	405	1.08	429	1.24	452	1.44	473	1.64	519	2.04	549	2.44	589	2.89	639	3.46

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	2670	445	1552	4.71	1640	5.38	1721	6.07	1790	6.80	1860	7.55	1929	8.24	1998	9.05	2050	9.72	2112	10.4	2168	11.1
40	2030	257	1190	3.88	1270	4.64	1347	5.36	1410	6.12	1479	6.84	1536	7.60	1595	8.48	1650	9.28	1705	10.0	1759	10.8
45	1608	161	964	3.54	1032	4.24	1102	5.03	1163	5.79	1223	6.65	1278	7.48	1329	8.36	1380	9.24				
50	1303	106	807	3.36	873	4.08	936	4.92	994	5.76	1046	6.64										
55	1080	073	698	3.28																		

7,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	2855	510											1398	3.62	1420	3.78	1440	3.96	1480	4.29	1530	4.58	1575	4.94
40	2180	296							934	2.06	956	2.24	978	2.40	1005	2.58	1030	2.75	1054	2.93	1102	3.29	1150	3.64
45	1720	185	653	1.28	684	1.46	707	1.62	738	1.80	764	2.00	791	2.18	816	2.36	864	2.70	909	3.08	948	3.46	995	3.84
50	1397	121	495	.97	531	1.11	558	1.30	588	1.49	615	1.69	643	1.88	666	2.05	711	2.41	752	2.80	790	3.18	828	3.56
55	1160	084	394	.77	430	.94	458	1.10	486	1.30	512	1.51	535	1.67	561	1.84	604	2.28	642	2.65	677	3.05	711	3.46
60	970	059	326	.64	360	.84	390	1.00	416	1.20	440	1.40	463	1.60	484	1.80	524	2.20	559	2.64	594	3.05	628	3.46

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	2855	510	1615	5.33	1695	6.03	1775	6.79	1842	7.50	1915	8.32	1982	9.08	2043	9.90	2100	10.6	2160	11.4	2224	12.1
40	2180	296	1231	4.41	1310	5.15	1385	5.95	1449	6.70	1515	7.55	1571	8.35	1630	9.25	1686	10.0	1738	10.9	1791	11.7
45	1720	185	986	3.87	1059	4.61	1127	5.42	1189	6.24	1247	7.15	1300	8.00	1352	8.94	1401	9.81	1450	10.7	1500	11.5
50	1397	121	825	3.62	890	4.43	955	5.26	1012	6.12	1064	7.07	1112	8.00								
55	1160	084	711	3.55	770	4.39	828	5.30														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

**H·S
FANS**

H.S. CURVED BACK FANS

PERFORMANCE TABLES

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

8,000 C.F.M.

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	3050	·581																						
40	2325	·338																						
45	1838	·211																						
50	1490	·139	518	1·12	552	1·32	580	1·52	609	1·68	635	1·88	660	2·08	684	2·24	729	2·64	769	3·04	807	3·48		
55	1232	·095	412	·87	447	1·07	474	1·27	503	1·47	528	1·64	553	1·84	575	2·04	617	2·48	655	2·88	690	3·32		
60	1032	·067	339	·72	371	·92	400	1·18	426	1·32	450	1·48	474	1·72	494	1·92	534	2·40	569	2·80	602	3·28		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	3050	·581	1683	6·16	1760	6·88	1840	7·69	1909	8·44	1975	9·31	2043	10·1	2106	10·9	2161	11·7	2220	12·6	2280	13·4
40	2325	·338	1267	4·84	1345	5·64	1420	6·44	1480	7·24	1545	8·12	1605	8·96	1662	9·88	1715	10·7	1766	11·6	1820	12·4
45	1838	·211	1012	4·27	1083	5·07	1150	5·90	1211	6·75	1269	7·69	1322	8·56	1385	9·60	1422	10·5	1471	11·4	1520	12·3
50	1490	·139	842	3·82	906	4·76	970	5·68	1026	6·52	1080	7·56	1128	8·56	1176	9·60	1223	10·5				
55	1232	·095	724	3·75	779	4·70	836	5·66	888	6·60												
60	1032	·067	633	3·80																		

8,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	3230	·652																						
40	2472	·381																						
45	1955	·239																						
50	1585	·157	546	1·30	577	1·49	605	1·68	633	1·88	657	2·10	682	2·32	706	2·52	751	2·91	790	3·32	827	3·77		
55	1308	·107	428	1·01	464	1·17	488	1·37	517	1·57	542	1·81	566	2·01	589	2·21	630	2·68	667	3·08	704	3·55		
60	1100	·075	350	·80	384	1·00	411	1·20	438	1·44	460	1·64	483	1·84	505	2·08	544	2·56	578	3·00	611	3·44		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35	3230	·652	1748	6·92	1826	7·72	1896	8·56	1968	9·35	2035	10·2	2100	11·1	2160	11·9	2218	12·8				
40	2472	·381	1305	5·38	1382	6·22	1453	7·08	1515	7·95	1579	8·90	1639	9·75	1695	10·7	1748	11·6	1800	12·5	1852	13·3
45	1955	·239	1037	4·66	1110	5·52	1176	6·41	1235	7·32	1293	8·26	1347	9·17	1398	10·2	1448	11·2	1495	12·2	1541	13·1
50	1585	·157	863	4·27	927	5·12	990	6·08	1035	6·98	1099	8·04	1145	9·04	1192	10·1	1239	11·2	1280	12·2		
55	1308	·107	735	4·05	795	4·96	854	5·94	904	6·94	953	8·05										
60	1100	·075	642	4·00	697	5·00																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S.
FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

9,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2620	429							1121	3.68	1144	3.88	1155	4.08	1185	4.32	1226	4.72	1270	5.12	1312	5.52		
45	2070	268			790	2.27	810	2.45	834	2.66	856	2.88	885	3.08	904	3.31	947	3.69	990	4.14	1034	4.59		
50	1675	176	581	1.48	605	1.72	627	1.92	654	2.12	678	2.36	703	2.60	726	2.80	767	3.20	809	3.64	845	4.12		
55	1383	120	447	1.17	481	1.34	506	1.54	533	1.81	558	2.01	583	2.24	605	2.41	646	2.88	683	3.35	719	3.85		
60	1162	885	364	.92	395	1.12	422	1.36	449	1.60	471	1.80	494	2.04	515	2.24	554	2.76	588	3.20	621	3.68		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2620	429	1349	6.00	1422	6.84	1495	7.72	1555	8.68	1616	9.48	1677	10.5	1732	11.5	1785	12.4	1837	13.4	1890	14.3
45	2070	268	1070	5.06	1140	5.97	1209	6.91	1265	7.84	1325	8.83	1377	9.80	1428	10.9	1476	11.9	1525	12.9	1574	13.8
50	1675	176	879	4.60	944	5.52	1006	6.52	1060	7.52	1114	8.60	1161	9.60	1210	10.7						
55	1383	120	750	4.36	810	5.30	867	6.37	919	7.38	966	8.52	1010	9.73								
60	1162	885	653	4.28	706	5.28	760	6.40														

9,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2770	480							1172	4.18	1191	4.45	1212	4.62	1231	4.83	1270	5.27	1314	5.69	1352	6.10		
45	2185	300			826	2.59	845	2.81	868	3.02	889	3.24	912	3.46	934	3.67	976	3.96	1019	4.55	1058	5.05		
50	1770	196	602	1.69	629	1.91	648	2.13	675	2.35	697	2.60	723	2.82	745	3.02	786	3.46	826	3.91	864	4.44		
55	1462	134	465	1.30	497	1.51	522	1.74	548	1.94	571	2.18	595	2.44	617	2.65	657	3.08	694	3.58	729	4.09		
60	1228	994	375	1.04	409	1.28	433	1.48	460	1.72	483	1.96	505	2.20	526	2.40	565	2.96	599	3.40	631	3.92		
70	900	651	289	.76	319	.98	325	1.24	347	1.46	368	1.68	388	1.95	406	2.17	441	2.77	472	3.31	500	3.90		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2770	480	1390	6.60	1461	7.50	1531	8.45	1592	9.43	1658	10.4	1717	11.4	1770	12.4	1824	13.4	1871	14.4	1923	15.3
45	2185	300	1091	5.76	1162	6.68	1229	7.48	1285	8.45	1350	9.46	1393	10.4	1448	11.6	1496	12.6	1540	13.6	1590	14.7
50	1770	196	897	4.94	962	5.85	1022	6.90	1078	7.92	1129	9.04	1178	10.1	1224	11.2	1269	12.3	1317	13.4	1360	14.5
55	1462	134	766	4.59	820	5.60	877	6.70	929	7.75	976	8.91										
60	1228	994	661	4.52	715	5.58	770	6.68														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. CUR
STANDARD
BAROMETRI

Fan Size	Outlet Velocity ft. per min.
40	2915
45	2300
50	1880
55	1540
60	1300
70	950

Fan Size	Outlet Velocity ft. per min.
40	2915
45	2300
50	1860
55	1540
60	1300
70	950

Fan Size	Outlet Velocity ft. per min.
40	3200
45	2526
50	2053
55	1700
60	1420
70	1047

Fan Size	Outlet Velocity ft. per min.
40	3200
45	2526
50	2053
55	1700
60	1420
70	1047

MATTHE

CYCLONE

H·S
FANS

H.S. CURVED BACK FANS

PERFORMANCE TABLES

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

10,000 C.F.M.

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/4" RH		2 1/2" RH		2 3/4" RH		3" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2915	.530																		
45	2300	.331																		
50	1860	.214																		
55	1540	.148	487	1.51	516	1.71	540	1.94	566	2.18	589	2.41	616	2.68	634	2.92	673	3.35	710	3.89
60	1300	.106	390	1.20	421	1.40	445	1.64	471	1.88	495	2.16	516	2.40	536	2.60	575	3.12	609	3.64
70	950	.056	276	.80	306	1.08	331	1.36	354	1.56	374	1.84	394	2.08	412	2.32	446	3.00	477	3.48

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/4" RH		2 1/2" RH		2 3/4" RH		3" RH		3 1/4" RH		3 1/2" RH		3 3/4" RH		4" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	2915	.530	1430	7.24	1502	8.16	1569	9.16	1629	10.0	1690	11.2	1750	12.2	1803	13.3	1854	14.3	1908	15.4
45	2300	.331	1120	6.00	1189	7.01	1255	8.26	1310	9.08	1368	10.1	1420	11.2	1472	12.3	1518	13.4	1567	14.6
50	1860	.214	916	5.32	981	6.32	1041	7.36	1095	8.44	1149	9.60	1195	10.6	1242	11.9	1289	13.1	1330	14.2
55	1540	.148	777	4.96	835	6.04	892	7.11	944	8.21	992	9.52								
60	1300	.106	671	4.80	725	5.88	779	7.04	826	8.24										
70	950	.056	532	4.76																

11,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/4" RH		2 1/2" RH		2 3/4" RH		3" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	3200	.640																		
45	2526	.399																		
50	2055	.264																		
55	1700	.181	526	1.84	553	2.11	573	2.35	597	2.58	618	2.89	642	3.15	661	3.39	701	3.90	736	4.44
60	1420	.126	417	1.44	447	1.68	470	1.96	495	2.20	516	2.48	539	2.80	559	3.00	596	3.60	630	4.12
70	1047	.068	292	1.04	321	1.26	344	1.52	367	1.84	387	2.00	406	2.36	425	2.60	458	3.24	488	3.80

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/4" RH		2 1/2" RH		2 3/4" RH		3" RH		3 1/4" RH		3 1/2" RH		3 3/4" RH		4" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	3200	.640	1520	8.84	1590	9.88	1655	11.0	1711	12.0	1770	13.1	1830	14.3	1882	15.4	1932	16.5	1982	17.6
45	2526	.399	1178	7.08	1242	8.20	1309	9.28	1362	10.4	1420	11.6	1472	12.7	1521	13.9	1569	15.1	1613	16.3
50	2055	.264	953	6.11	1016	7.21	1077	8.40	1128	9.60	1181	10.6	1230	11.9	1274	13.2	1320	14.4	1361	15.6
55	1700	.181	802	5.60	862	6.71	916	7.92	967	9.12	1030	10.4	1059	11.7	1102	13.1	1142	14.4	1182	15.7
60	1420	.126	691	5.36	745	6.40	798	7.80	845	9.00	890	10.4	930	11.8	970	13.2	1010	14.6	1045	16.1
70	1047	.068	544	5.20	592	6.50	637	7.88	679	9.34	717	10.9	755	12.6	789	14.0				

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S.
FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

12,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45	2760	486							1059	5.52	1074	5.75	1092	6.04	1125	6.58	1164	7.10	1200	7.65				
50	2235	313							814	4.22	834	4.50	854	4.75	890	5.28	928	5.82	963	6.44				
55	1848	213	569	2.28	590	2.55	611	2.85	632	3.09	653	3.43	674	3.70	693	3.97	731	4.54	768	5.10	800	5.70		
60	1552	151	447	1.80	475	2.04	496	2.36	520	2.60	540	2.92	562	3.20	581	3.44	619	4.04	651	4.64	682	5.28		
70	1138	981	308	1.20	335	1.44	358	1.72	380	2.04	400	2.32	420	2.64	438	2.92	472	3.60	502	4.24	530	4.88		
80	876	648	233	.92	258	1.27	281	1.49	301	1.85	319	2.14	337	2.48	353	2.84	384	3.55	409	4.25	436	4.96		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45	2760	486	1295	8.25	1298	9.40	1358	10.6	1414	11.8	1468	13.1	1520	14.3	1572	15.6	1615	16.8	1660	18.1	1708	19.2
50	2235	313	994	7.08	1056	8.22	1116	9.48	1167	10.7	1220	12.0	1268	13.3	1312	14.7	1350	16.0	1397	17.3	1440	18.6
55	1848	213	832	6.40	890	7.57	944	8.90	994	10.2	1040	11.5	1082	12.8	1128	14.4	1169	15.7	1205	17.1	1245	18.4
60	1552	151	712	6.00	766	7.20	818	8.56	865	9.64	909	11.3	949	12.8	989	14.3						
70	1138	981	557	5.70	603	7.08	649	8.48														
80	876	648	459	5.75	502	7.29	541	8.95														

13,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45	3000	562													1134	6.80	1150	7.10	1166	7.40	1196	7.92	1231	8.46
50	2420	365													860	5.04	878	5.32	896	5.60	931	6.24	970	6.84
55	2000	250													708	4.33	726	4.63	762	5.20	797	5.84	831	6.51
60	1680	176	479	3.16	504	3.48	523	3.76	545	4.04	565	4.40	585	4.68	605	5.00	640	5.60	674	6.24	704	6.92		
70	1232	1095	324	1.40	352	1.72	373	2.08	395	2.40	416	2.72	434	3.04	453	3.36	486	4.08	516	4.68	543	5.44		
80	943	656	241	1.04	266	1.40	289	1.76	308	2.12	327	2.48	344	2.72	360	3.04	390	3.92	416	4.56	442	5.32		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45	3000	562	1297	9.61	1358	11.00	1418	12.3	1471	13.5	1528	15.0	1579	16.3	1627	17.7	1670	19.0	1716	20.4	1760	21.6
50	2420	365	1034	8.12	1095	9.44	1154	10.8	1204	12.0	1255	13.4	1303	14.7	1348	16.2	1388	17.6	1431	19.0	1473	20.3
55	2000	250	860	7.21	917	8.49	974	9.86	1020	11.2	1068	12.6	1112	14.0	1152	15.7	1195	17.1	1231	18.6	1271	19.9
60	1680	176	733	6.64	786	7.92	836	9.40	885	10.80	929	12.3	969	13.8	1009	15.5	1046	17.0	1081	18.6		
70	1232	995	570	4.30	614	5.44	661	6.56	703	7.68												
80	943	656	465	4.24																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H.S.
FANS

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

14,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45	3215	.646																						
50	2608	.426																						
55	2165	.293																						
60	1808	.204	511	2.64	532	2.96	550	3.28	570	3.56	590	3.88	610	4.24	628	4.56	662	5.20	695	5.88	725	6.60	755	7.38
70	1325	.110	340	1.68	368	2.00	388	2.32	410	2.72	430	3.04	448	3.44	466	3.68	498	4.40	527	5.16	556	5.88	585	6.60
80	1018	.065	251	1.20	277	1.56	298	1.92	318	2.28	336	2.56	353	2.96	368	3.32	398	4.16	425	4.88	450	5.68	475	6.48

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45	3215	.646	1358	11.4	1417	12.7	1474	14.1	1529	15.4	1578	16.8	1634	18.3	1680	19.7	1722	21.1	1769	22.6	1811	24.00
50	2608	.426	1077	9.28	1137	10.6	1191	12.0	1241	13.4	1292	15.00	1340	16.4	1387	17.9	1427	19.4	1470	20.9	1510	22.2
55	2165	.293	890	8.10	946	9.50	1000	10.9	1046	12.3	1095	13.8	1139	15.4	1180	17.1	1219	18.6	1257	20.2	1295	21.6
60	1808	.204	755	7.40	808	8.80	859	10.2	904	11.8	947	13.4	988	14.9	1027	16.7	1065	18.3	1100	20.0	1137	21.4
70	1325	.110	581	6.76	627	8.28	674	9.92	714	11.5	751	13.2										
80	1018	.065	473	6.68	515	8.32																

15,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	2798	.490												979	7.40	993	7.76	1021	8.40	1057	9.04	1090	9.72	
55	2315	.335					721	4.72	736	5.02	755	5.43	773	5.80	792	6.10	824	6.78	859	7.48	889	8.22		
60	1940	.235			561	3.44	578	3.80	596	4.12	615	4.48	635	4.84	652	5.20	686	5.80	719	6.60	749	7.32		
70	1420	.126	359	2.00	385	2.32	403	2.72	424	3.04	444	3.44	462	3.80	480	4.12	512	4.88	541	5.64	569	6.48		
80	1087	.074	262	1.44	286	1.76	307	2.12	327	2.56	345	2.92	361	3.28	378	3.64	407	4.56	433	5.24	458	6.12		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	2798	.490	1117	10.4	1175	11.9	1231	13.4	1280	14.9	1329	16.5	1377	18.0	1421	19.6	1461	21.2	1505	22.8	1545	24.2
55	2315	.335	917	8.99	974	10.4	1028	11.9	1072	13.4	1119	15.1	1162	16.6	1206	18.4	1241	20.0	1282	21.7	1320	23.1
60	1940	.235	776	8.20	830	9.68	880	11.2	925	12.8	969	14.5	1008	16.1	1046	18.0	1084	19.7	1120	21.4	1155	23.0
70	1420	.126	594	7.36	640	8.92	685	10.6	727	12.2	764	14.2	798	16.1	833	18.0						
80	1087	.074	481	7.12	522	8.88																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H·S FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

16,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	2977	.552															1015	8.64	1043	9.00	1069	9.64	1102	10.3	1134	11.0
55	2470	.381											776	5.92	792	6.30	808	6.70	825	7.05	860	7.80	891	8.52	921	9.28
60	2070	.268							591	4.04	607	4.36	624	4.72	641	5.12	660	5.48	677	5.88	710	6.56	741	7.36	771	8.16
70	1522	.145	377	2.32	403	2.88	420	3.04	442	3.44	459	3.84	478	4.24	495	4.60	527	5.32	555	6.20	582	7.08				
80	1165	.085	272	1.60	296	2.00	316	2.40	337	2.84	353	3.20	370	3.60	389	3.96	415	4.84	440	5.68	466	6.60				
90	920	.053	212	1.24	234	1.60	254	2.04	272	2.44	287	2.88	303	3.32	317	3.68	344	4.76	368	5.60	392	6.56				

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	2977	.552	1160	11.9	1218	13.4	1271	15.0	1320	16.6	1367	18.2	1415	19.8	1460	21.4	1499	23.2	1539	24.8	1581	26.4
55	2470	.381	948	10.0	1002	11.6	1059	13.2	1102	14.8	1149	16.6	1191	18.3	1232	20.2	1270	21.8	1307	23.5	1348	25.1
60	2070	.268	798	9.00	851	10.6	901	12.2	945	13.9	989	15.6	1028	17.4	1062	19.4	1103	21.1	1139	23.0	1175	24.6
70	1522	.145	608	7.92	653	9.56	698	11.4	738	13.2	775	15.2	810	17.1	845	19.2	879	21.2	909	23.2		
80	1165	.085	490	7.60	530	9.44	570	11.3	606	13.2												
90	920	.053	411	7.64	448	9.72	484	11.8														

17,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	3170	.630															1082	10.0	1094	10.3	1119	11.0	1147	11.8	1178	12.6
55	2620	.429											819	6.90	834	7.36	850	7.71	865	8.10	894	8.91	928	9.62	956	10.4
60	2200	.302							622	4.64	636	5.04	652	5.40	669	5.84	686	6.24	703	6.60	734	7.36	766	8.20	795	9.04
70	1618	.164	397	2.64	420	3.04	438	3.44	457	3.80	474	4.28	493	4.68	509	5.12	540	5.88	568	6.76	595	7.64				
80	1232	.095	285	1.92	307	2.27	326	2.70	346	3.12	363	3.55	380	3.90	396	4.33	425	5.32	452	6.10	476	7.10				
90	978	.060	218	1.44	241	1.88	260	2.32	277	2.72	293	3.16	309	3.60	322	4.04	349	5.04	373	5.92	396	6.92				

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	3170	.630	1205	13.5	1260	15.1	1314	16.8	1360	18.4	1409	20.1	1457	21.8	1500	23.6	1539	25.4	1579	27.1	1616	28.8
55	2620	.429	982	11.3	1038	13.0	1083	14.6	1130	16.3	1179	18.2	1219	19.6	1263	21.8	1298	23.6	1339	25.3	1374	27.0
60	2200	.302	820	9.92	874	11.6	923	13.4	965	15.0	1010	16.9	1048	18.7	1087	20.8	1123	22.6	1159	24.6	1199	26.2
70	1618	.164	620	8.56	665	10.3	710	12.2	750	14.0	788	16.0	821	18.0	855	20.2	889	22.4	915	24.4		
80	1232	.095	498	8.17	539	10.0	579	12.1	615	14.1												
90	978	.060	416	8.08																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. CUR
STANDARD
BAROMETRI

Fan Size	Outlet Velocity ft. per min.
50	3350
55	2780
60	2325
70	1706
80	1308
90	1033

Fan Size	Outlet Velocity ft. per min.
50	3350
55	2780
60	2325
70	1706
80	1308
90	1033

Fan Size	Outlet Velocity ft. per min.
55	2930
60	2450
70	1802
80	1380
90	1092

Fan Size	Outlet Velocity ft. per min.
55	2930
60	2450
70	1802
80	1380
90	1092

MATTHEW

CYCLONE

H.S.
FANS

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

18,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	3350	-700																						
55	2780	-480																						
60	2325	-338																						
70	1706	-183	418	3.08	438	3.44	455	3.92	473	4.32	490	4.84	506	5.20	524	5.60	554	6.44	582	7.32	609	8.28	639	9.28
80	1308	-106	293	2.12	318	2.56	335	2.96	355	3.48	372	3.92	389	4.32	404	4.76	432	5.68	458	6.60	483	7.52	508	8.48
90	1033	-066	226	1.60	247	2.08	267	2.52	284	2.96	300	3.36	316	3.88	329	4.32	356	5.40	379	6.28	402	7.36	425	8.40

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50	3350	-700	1255	15.4	1306	17.0	1357	18.7	1405	20.4	1449	22.3	1495	24.1	1541	26.0	1580	27.8	1620	29.6	1661	31.4
55	2780	-480	1013	12.5	1068	14.2	1118	16.1	1163	17.8	1207	19.7	1250	21.6	1290	23.6	1327	25.5	1365	27.3	1402	29.1
60	2325	-338	844	10.9	896	12.7	945	14.5	986	16.2	1030	18.2	1069	20.2	1109	22.2	1142	24.2	1182	26.2	1214	28.0
70	1706	-183	633	9.28	679	11.1	724	13.0	764	14.9	800	17.2	834	19.2	869	21.4	902	23.6	931	25.8	964	27.8
80	1308	-106	505	8.60	546	10.5	585	12.6	621	14.7	654	17.0										
90	1033	-066	422	8.56	458	9.92																

19,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	2930	-532																						
60	2450	-375																						
70	1802	-204	439	3.52	457	3.96	471	4.40	489	4.84	505	5.32	523	5.76	538	6.24	568	7.08	597	8.00	622	8.96	647	9.92
80	1380	-119	307	2.40	330	2.84	347	3.28	366	3.76	382	4.24	399	4.75	414	5.20	442	6.12	468	7.08	492	8.16	517	9.20
90	1092	-075	233	1.80	255	2.24	273	2.68	286	3.24	306	3.68	322	4.12	335	4.68	362	5.76	385	6.68	407	7.72	430	8.80

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	2930	-532	1048	14.0	1098	15.7	1149	17.6	1194	19.4	1237	21.4	1280	23.4	1319	25.4	1352	27.4	1392	29.4	1430	31.9
60	2450	-375	868	11.9	919	13.8	968	15.7	1009	17.6	1051	19.8	1090	21.6	1129	23.8	1163	25.8	1198	27.9	1234	29.7
70	1802	-204	646	10.0	692	11.9	736	13.9	775	16.0	812	18.1	846	20.3	879	22.8	912	25.0	942	27.2	979	29.2
80	1380	-119	514	9.24	555	11.2	594	13.3	630	15.5	663	18.0	699	20.4								
90	1092	-075	427	9.00	464	11.2	500	13.2														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H·S FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

20,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3085	.591															963	11.2	974	11.6	998	12.5	1024	13.3
60	2590	.420							740	7.92	754	8.48	768	8.88	782	9.32	810	10.2	841	11.1	867	12.1	887	12.8
70	1898	.226			479	4.48	488	4.88	505	5.28	521	5.80	539	6.32	554	6.80	584	7.60	610	8.57	635	9.54	655	10.5
80	1455	.131	317	2.72	340	3.18	356	3.52	375	4.04	391	4.64	407	5.12	423	5.60	450	6.48	476	7.52	500	8.64	520	9.6
90	1152	.082	240	2.08	262	2.44	280	2.96	298	3.40	313	3.96	327	4.48	342	4.96	368	6.00	391	7.08	412	8.16	432	9.2
100	930	.054	191	1.64	212	2.08	229	2.64	246	3.12	260	3.52	273	4.12	286	4.56	310	5.92	331	7.04	352	8.32	372	9.4

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3085	.591	1079	15.4	1130	17.2	1173	19.2	1218	21.1	1261	23.2	1307	25.2	1350	27.3	1380	29.3	1418	31.4	1457	33.4
60	2590	.420	891	13.0	941	15.0	990	17.0	1030	19.0	1072	21.2	1112	23.2	1150	25.5	1184	27.5	1219	29.7	1254	31.6
70	1898	.226	660	10.7	705	12.7	749	14.7	787	16.9	825	19.2	859	21.2	893	23.9	924	26.0	955	28.4	985	30.6
80	1455	.131	522	9.76	562	11.8	601	14.2	632	16.3	670	18.8	701	21.2	731	24.0						
90	1152	.082	433	9.44	470	11.8	505	14.2														

21,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3250	.660															1005	12.7	1013	13.1	1035	14.0	1062	14.9
60	2715	.460							770	9.00	784	9.52	797	9.92	810	10.4	836	11.4	865	12.2	893	13.2	918	14.2
70	1992	.248	477	4.62	492	5.00	506	5.44	520	5.89	536	6.42	553	6.91	567	7.40	596	8.28	624	9.36	649	10.4	674	11.4
80	1522	.144	331	3.06	352	3.55	368	4.05	387	4.48	401	5.12	418	5.61	434	6.04	461	6.97	486	8.11	510	9.23	534	10.3
90	1210	.091	239	2.25	269	2.79	286	3.24	304	3.78	319	4.23	333	4.76	347	5.30	373	6.48	397	7.46	418	8.64	438	9.7
100	975	.059	196	1.77	216	2.33	234	2.89	250	3.33	264	3.78	278	4.34	291	4.88	315	6.22	336	7.44	357	8.66	377	9.7

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3250	.660	1112	17.1	1161	19.0	1207	21.1	1250	23.0	1292	25.1	1338	27.3	1377	29.5	1411	31.6	1446	33.8	1485	35.8
60	2715	.460	916	14.3	965	16.3	1012	18.4	1052	20.6	1094	22.8	1134	24.9	1171	27.2	1205	29.4	1240	31.6	1275	33.6
70	1992	.248	673	11.6	718	13.6	762	15.9	799	18.1	836	20.4	871	22.6	904	24.9	935	27.6	964	30.0	996	32.3
80	1522	.144	532	10.4	572	12.6	610	14.9	646	17.2	679	19.8	709	22.4								
90	1210	.091	439	9.99	474	11.8	510	14.8	543	17.3												

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H·S
FANS

H.S. CURVED BACK FANS

PERFORMANCE TABLES

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

22,000 C.F.M.

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3400	.720													1052	14.3	1073	15.3	1098	16.3	1121	17.3
60	2842	.505									815	10.6	826	11.0	839	11.6	863	12.6	891	13.4	919	14.4
70	2085	.271			512	5.61	525	6.08	540	6.56	555	7.16	570	7.60	585	8.16	612	9.12	640	10.2	665	11.4
80	1600	.160	345	3.40	365	3.82	381	4.40	398	4.88	413	5.42	429	6.04	447	6.52	471	7.60	495	8.68	520	9.80
90	1264	.099	256	2.48	276	3.04	293	3.56	311	4.00	326	4.68	341	5.24	355	5.72	380	6.84	403	8.00	425	9.12
100	1023	.066	203	2.00	222	2.44	240	2.96	256	3.52	270	4.00	283	4.64	296	5.20	320	6.52	340	7.64	360	8.88

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
55	3400	.720	1149	18.6	1194	20.5	1239	22.6	1281	24.6	1323	26.8	1368	29.1	1411	31.3	1440	33.5	1478	35.7	1515	37.9
60	2842	.505	941	15.6	990	17.7	1035	19.9	1075	22.0	1116	24.4	1156	26.6	1194	29.1	1226	31.3	1260	33.6	1295	35.7
70	2085	.271	687	12.5	735	14.6	777	17.0	812	19.3	850	21.6	885	24.0	920	26.8	950	29.1	980	31.7	1010	34.0
80	1600	.160	540	11.0	580	13.2	620	15.8	655	18.2	687	20.9	717	23.4	747	26.3	777	29.0	802	31.7		
90	1264	.099	445	10.4	480	12.8	516	15.4	548	18.0	578	20.9										
100	1023	.066	378	10.4																		

23,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	2975	.550									845	11.8	856	12.3	867	12.8	890	13.8	917	14.8	944	15.8
70	2180	.297			541	6.26	548	6.81	557	7.24	572	7.85	587	8.38	600	8.94	628	9.97	655	11.1	680	12.2
80	1680	.176	360	3.91	378	4.41	393	4.91	409	5.40	424	6.04	439	6.61	455	7.11	480	8.18	510	9.31	529	10.5
90	1320	.109	264	2.79	284	3.33	300	3.87	318	4.32	333	5.04	347	5.58	361	6.03	387	7.29	410	8.46	431	9.72
100	1070	.072	207	2.22	227	2.78	244	3.22	260	3.89	274	4.33	288	5.00	300	5.55	324	6.89	345	8.10	365	9.44

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	2975	.550	966	17.0	1014	19.2	1059	21.6	1099	23.7	1139	26.2	1179	28.6	1215	31.0	1247	33.4	1282	35.8	1315	38.0
70	2180	.297	703	13.4	747	15.7	791	18.2	826	20.4	862	22.9	897	25.4	930	28.1	963	30.6	991	33.3	1021	35.2
80	1680	.179	550	11.8	591	14.1	629	16.7	664	19.2	696	22.1	727	24.6	764	27.6	785	30.4	813	33.1		
90	1320	.109	451	11.1	484	13.6	523	16.3	553	19.0	583	21.9										
100	1070	.072	384	10.9	416	13.7																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H·S FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

24,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	3105	.603															887	13.6	897	14.2	919	15.2	944	16.2
70	2280	.325															603	9.12	617	9.64	644	10.7	670	11.8
80	1745	.190	370	4.24	387	4.80	401	5.28	417	5.92	432	6.48	447	7.04	462	7.52	487	8.64	508	9.76	535	11.0	569	12.4
90	1380	.119	272	3.08	293	3.60	309	4.12	326	4.76	340	5.40	358	5.92	368	6.56	393	7.72	416	9.00	437	10.3	469	11.7
100	1120	.078	212	2.32	231	2.88	248	3.44	263	4.12	278	4.56	291	5.28	304	5.76	327	7.20	348	8.48	367	9.76	391	11.0
110	925	.053	174	2.00	192	2.54	208	3.20	223	3.76	236	4.28	248	4.96	260	5.64	281	7.12	301	8.44	318	9.76	341	11.0

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	3105	.603	991	18.6	1038	20.8	1081	23.2	1121	25.6	1160	28.0	1201	30.5	1237	33.0	1270	35.4	1304	37.9	1338	40.0
70	2280	.325	715	14.3	760	16.5	804	19.1	840	21.4	876	24.1	910	26.6	944	29.4	974	32.1	1001	34.8	1033	37.2
80	1745	.190	557	12.4	597	15.3	635	17.4	670	20.0	702	22.8	733	25.6	760	28.5	790	31.5	817	34.1	844	36.9
90	1380	.119	454	11.6	493	14.2	527	17.0	560	19.8	590	22.8										
100	1120	.078	386	11.3	419	14.0	450	17.1														

25,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	3230	.651															920	15.1	929	15.6	949	16.6	973	17.8
70	2370	.350															621	10.0	635	10.5	660	11.7	686	12.8
80	1820	.206	396	4.96	411	5.32	423	5.75	438	6.25	452	7.04	466	7.60	480	8.18	506	9.02	531	10.5	553	11.8	575	13.1
90	1430	.127	281	3.24	301	3.96	313	4.50	333	5.13	347	5.76	363	6.39	375	6.93	400	8.19	424	9.45	443	10.8	469	12.1
100	1160	.084	219	2.56	237	3.11	253	3.78	270	4.44	283	5.00	297	5.55	309	6.16	333	7.56	353	8.88	373	10.3	391	11.7
110	960	.057	177	2.02	194	2.69	211	3.36	225	4.04	239	4.58	252	5.25	264	5.92	285	7.40	304	8.75	323	10.2	341	11.6

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	3230	.651	1020	20.3	1064	22.6	1108	25.1	1146	27.4	1185	30.1	1225	32.8	1260	35.2	1293	37.7	1325	40.2	1360	42.6
70	2370	.350	733	15.0	776	17.9	819	20.3	854	22.8	890	25.6	924	29.2	958	31.1	986	33.7	1018	36.4	1049	38.8
80	1820	.206	574	13.2	614	15.7	652	18.3	685	21.1	718	23.8	748	26.6	778	30.0	806	32.8	832	35.7	860	38.3
90	1430	.127	463	12.1	499	14.8	534	17.7	566	20.5	596	23.7	623	27.0								
100	1160	.084	392	11.8	424	14.6	456	17.7														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H.S.
FANS

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

26,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	3370	-708													960	17.0	977	18.2	999	19.5	1022	20.6
70	2470	-381							610	9.80	623	10.4	635	10.9	649	11.2	675	12.8	701	13.9	724	15.2
80	1890	-223	397	5.20	413	5.80	426	6.40	440	6.88	455	7.52	470	8.24	482	8.88	507	9.96	532	11.2	555	12.5
90	1492	-139	290	3.68	309	4.32	325	4.92	339	5.48	354	6.20	367	6.84	382	7.36	406	8.64	427	10.0	450	11.3
100	1212	-092	224	2.76	243	3.32	258	4.00	274	4.64	288	5.20	305	5.68	313	6.44	337	7.96	358	9.20	377	10.6
110	1003	-063	176	2.28	199	2.92	215	3.60	233	4.28	243	4.68	255	5.36	266	6.04	287	7.64	308	8.96	326	10.5

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	3370	-708	1045	22.2	1089	24.5	1131	27.0	1170	29.4	1206	32.0	1247	34.7	1282	37.4	1315	40.0	1348	42.7	1382	45.2
70	2470	-381	746	16.5	789	19.1	832	21.7	865	24.4	901	27.2	936	29.9	970	32.9	997	35.6	1030	38.4	1060	40.8
80	1890	-223	575	14.0	616	16.5	655	19.2	687	22.2	720	25.2	750	27.7	780	31.3	808	34.2	834	37.2	861	40.0
90	1492	-139	470	12.8	505	15.5	540	18.5	573	21.4	601	24.6	627	27.2	654	31.2						
100	1212	-092	396	12.1	428	15.0	460	18.2	488	21.2												
110	1003	-063	342	12.3																		

27,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2580	-416							630	10.5	643	11.1	654	11.7	667	12.3	691	13.6	718	14.8	740	16.0
80	1955	-240	414	5.81	427	6.39	438	6.89	452	7.45	466	8.15	481	8.88	495	9.52	519	10.5	543	12.0	565	13.2
90	1552	-151	265	4.05	317	4.59	331	5.22	347	5.85	360	6.56	375	7.20	387	7.74	413	9.09	434	10.4	456	11.8
100	1258	-098	228	3.00	249	3.66	267	4.33	279	5.00	294	5.55	306	6.22	318	7.00	341	8.33	362	9.78	381	11.2
110	1038	-067	185	2.42	203	3.09	219	3.76	234	4.34	246	4.97	258	5.78	270	6.45	292	8.06	311	9.40	329	11.0

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2580	-416	761	17.4	804	20.0	846	22.8	880	25.5	917	28.4	950	31.1	983	34.1	1011	36.9	1042	39.8	1071	42.2
80	1955	-240	586	14.7	626	17.4	664	20.2	697	23.1	730	26.2	760	29.0	788	32.6	817	35.4	844	38.6	871	41.4
90	1552	-151	475	13.5	510	16.2	546	19.2	573	22.1	607	25.4	633	28.8	660	32.2	685	35.6				
100	1258	-098	400	12.8	432	15.7	464	19.0	493	22.2												
110	1038	-067	346	12.9																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H·S FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

28,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2660	445											650	11.6	660	12.3	672	12.9	685	13.6	706	14.8	734	16.1
80	2030	257							439	6.88	450	7.52	464	8.16	477	8.96	491	9.60	505	10.1	528	11.3	552	12.8
90	1610	161	307	4.32	326	4.96	338	5.68	354	6.32	367	7.00	382	7.72	394	8.36	419	9.64	441	11.1	462	12.6		
100	1303	106	234	3.36	254	3.84	268	4.48	284	5.28	297	6.08	311	6.72	326	7.36	346	8.80	366	10.2	386	11.8		
110	1080	873	189	2.68	207	3.32	222	4.00	237	4.68	250	5.36	262	6.04	273	6.68	295	8.44	313	9.92	332	11.4		
120	905	705	157	2.24	174	2.88	189	3.68	202	4.32	214	4.96	226	5.76	236	6.56	259	8.16	274	9.76	291	11.5		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2660	445	774	18.8	820	21.5	860	24.2	895	27.2	920	30.2	964	32.9	999	36.2	1025	38.8	1056	41.6	1084	44.4
80	2030	257	595	15.5	635	18.5	678	21.4	705	24.4	739	27.2	768	30.4	797	33.9	825	37.1	852	40.0	879	43.2
90	1610	161	482	14.1	516	16.9	551	20.1	581	23.1	611	26.6	639	29.9	664	33.4	690	36.9				
100	1303	106	403	13.4	436	16.3	468	19.6	497	23.0	523	26.5	547	30.4								
110	1080	873	349	12.5	378	16.4																

29,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2730	473											668	12.8	679	13.4	692	14.0	702	14.6	724	15.9	748	17.1
80	2110	278							452	7.52	464	8.16	476	8.80	489	9.58	503	10.2	515	10.9	540	12.1	564	13.5
90	1665	175	312	4.86	323	5.49	347	6.12	362	6.75	375	7.56	389	8.19	401	8.82	425	10.2	447	11.7	468	13.1		
100	1348	114	241	3.56	261	4.12	278	5.00	290	5.68	303	6.34	317	7.12	328	7.79	351	9.24	372	10.6	391	12.3		
110	1110	897	194	2.80	211	3.50	226	4.17	241	4.98	253	5.65	265	6.32	277	7.14	299	8.75	317	10.2	336	11.8		
120	925	705	160	2.40	177	3.20	192	3.84	205	4.48	217	5.12	228	5.92	237	6.72	259	8.48	277	10.0	294	11.9		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2730	473	794	20.0	824	22.8	854	25.6	880	28.5	944	31.4	978	34.5	1010	37.7	1038	40.6	1069	43.7	1099	46.6
80	2110	278	605	16.8	645	19.5	680	22.4	715	25.5	747	28.7	778	31.7	807	35.2	833	38.4	860	41.9	888	44.7
90	1665	175	487	14.8	523	17.7	557	20.8	588	24.0	618	27.7	644	30.8	671	34.6	696	38.1	720	41.6		
100	1348	114	408	14.0	441	17.1	474	20.4	501	23.8	528	27.4										
110	1110	897	352	13.7	382	16.9																
120	925	705	309	13.7																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

**H·S
FANS**

H.S. CURVED BACK FANS

PERFORMANCE TABLES

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

30,000 C.F.M.

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2855	·510											699	14.4	710	15.1	720	15.8	740	17.1	765	18.3	787	19.7		
80	2180	·296			467	8.24	478	8.96	489	9.60	502	10.3	515	11.0	527	11.7	551	13.1	575	14.5	595	16.0				
90	1720	·185	326	5.12	342	5.84	353	6.48	369	7.20	382	8.00	395	8.72	408	9.44	432	10.8	454	12.3	474	13.8				
100	1397	·121	247	3.88	265	4.44	279	5.20	294	5.96	307	6.76	321	7.58	333	8.20	355	9.60	376	11.2	395	12.7				
110	1160	·084	197	3.08	215	3.76	229	4.40	243	5.20	256	6.04	267	6.68	280	7.36	302	9.12	321	10.6	338	12.2				
120	970	·059	163	2.56	180	3.36	195	4.00	208	4.80	220	5.60	231	6.40	242	7.20	262	8.80	279	10.5	297	12.2				

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	2855	·510	807	21.3	847	24.1	887	27.1	921	30.0	957	33.2	991	36.3	1021	39.6	1050	42.4	1080	45.6	1112	48.4
80	2180	·296	615	17.6	655	20.6	692	23.8	724	26.8	757	30.2	785	33.4	815	37.0	843	40.0	869	43.6	895	46.8
90	1720	·185	493	15.4	529	18.4	563	21.6	594	24.9	623	28.6	650	32.0	676	35.7	700	39.2	725	42.8	750	46.0
100	1397	·121	412	14.4	445	17.7	477	21.0	506	24.4	532	28.2	556	32.0								
110	1160	·084	355	14.2	385	17.5	414	21.2														

32,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	3050	·581													750	17.7	759	18.6	782	19.7	800	21.2	820	22.8		
80	2325	·338									500	10.2	510	11.0	522	11.8	534	12.4	546	13.2	569	13.9	592	16.1	614	17.7
90	1838	·211			358	6.84	370	7.64	384	8.28	397	9.08	410	9.92	421	10.6	445	12.0	467	13.6	487	15.3				
100	1490	·139	259	4.48	276	5.28	290	6.08	304	6.72	317	7.52	330	8.32	342	8.96	364	10.5	384	12.1	403	13.9				
110	1232	·095	206	3.48	223	4.28	237	5.08	251	5.88	264	6.56	276	7.36	287	8.16	308	9.92	327	11.5	345	13.2				
120	1032	·067	169	2.88	185	3.68	200	4.72	213	5.28	225	5.92	237	6.88	247	7.68	267	9.60	284	11.2	301	13.1				

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	3050	·581	841	24.6	880	27.5	920	30.7	954	33.7	987	37.2	1021	40.4	1053	43.6	1080	46.8	1110	50.4	1140	53.6
80	2325	·338	633	19.3	672	22.5	710	25.7	740	28.9	777	32.4	802	35.7	831	39.5	857	42.8	883	46.4	910	49.6
90	1838	·211	506	17.0	541	20.2	575	23.6	605	27.0	634	30.7	661	34.2	692	38.4	711	42.0	735	45.6	760	49.2
100	1490	·129	421	15.2	453	19.0	485	22.7	513	26.0	540	30.2	564	34.2	588	38.4						
110	1232	·095	362	15.0	389	18.8	418	22.6	444	26.4												
120	1032	·067	316	15.2																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H·S FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

34,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
70	3230	-652																795	21.2	813	22.6	834	24.2	854	25.8
80	2472	-381																568	15.1	590	16.7	614	18.2	634	19.9
90	1955	-239			380	8.00	387	8.72	400	9.36	414	10.3	425	11.1	437	12.0	459	13.3	481	15.0	500	16.7			
100	1585	-157	273	5.20	288	5.96	302	6.72	316	7.52	328	8.40	341	9.28	353	10.0	375	11.6	395	13.2	413	15.0			
110	1308	-107	214	4.04	232	4.68	244	5.48	258	6.28	271	7.24	283	8.04	294	8.84	315	9.72	333	12.3	352	14.2			
120	1100	-075	175	3.20	192	4.00	205	4.80	219	5.76	230	6.56	241	7.36	252	8.32	272	10.20	289	12.0	305	13.7			
130	935	-054	147	2.82	163	3.76	177	4.51	189	5.26	200	6.02	211	6.96	219	7.90	239	9.98	256	11.8					

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
70	3230	-652	874	27.6	913	30.8	948	34.2	984	37.4	1017	40.8	1050	44.4	1080	47.6	1109	51.2	1135	54.8	1165	58.2
80	2472	-381	652	21.5	691	24.8	721	28.3	757	31.8	789	35.6	819	39.0	842	42.8	874	46.4	900	50.0	926	53.2
90	1955	-239	518	18.6	555	22.0	588	25.6	617	29.2	646	33.0	673	36.6	699	40.8	724	44.8	747	48.8	770	52.4
100	1585	-157	431	17.0	463	20.4	495	24.3	517	27.9	549	32.1	572	36.1	596	40.4	619	44.8	640	48.8	640	48.8
110	1308	-107	367	16.2	397	19.8	427	23.7	452	27.7	476	32.2										
120	1100	-075	321	16.0	348	20.0																

36,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	2620	-430							560	14.7	572	15.5	577	16.3	592	17.2	613	18.8	635	20.4	656	22.0		
90	2070	-268			395	9.08	405	9.80	417	10.6	428	11.5	442	12.3	452	13.2	473	14.7	495	16.5	517	18.3		
100	1675	-184	290	5.92	302	6.88	313	7.68	327	8.48	339	9.44	351	10.4	363	11.2	383	12.8	404	14.5	422	16.4		
110	1383	-119	223	4.68	240	5.36	253	6.16	266	7.24	279	8.04	291	8.96	302	9.64	323	11.5	341	13.4	359	15.4		
120	1162	-084	182	3.68	197	4.48	211	5.44	224	6.40	235	7.20	247	8.16	257	8.96	277	11.0	294	12.8	310	14.7		
130	990	-061	152	3.19	168	4.13	182	4.88	194	5.63	205	6.57	215	7.50	224	8.45	244	10.7	260	12.5	276	14.6		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	2620	-430	674	24.0	711	27.3	747	30.8	777	34.7	808	37.9	838	42.0	866	46.0	892	49.6	918	53.6	945	57.2
90	2070	-268	535	20.2	570	23.8	604	27.6	632	31.3	662	35.3	688	39.2	714	43.6	738	47.6	762	51.6	787	55.6
100	1675	-184	439	18.4	472	22.0	503	26.0	530	30.0	557	34.4	580	38.4	605	42.8						
110	1383	-119	373	17.4	405	21.2	433	25.4	459	29.5	483	34.0	505	38.9								
120	1162	-084	326	17.1	353	21.1	380	25.6														
130	990	-061	289	17.2																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

**H·S
FANS**

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

38,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	2770	-480							586	16.7	595	17.8	606	18.4	615	19.3	635	21.0	657	22.7	676	24.4
90	2185	-300			413	10.3	422	11.2	434	12.0	444	12.9	456	13.8	467	14.6	488	15.8	509	18.2	529	20.2
100	1770	-196	301	6.76	314	7.64	324	8.52	337	9.40	348	10.4	361	11.2	372	12.0	393	13.8	413	15.6	432	17.7
110	1462	-134	232	5.20	248	6.04	261	6.96	274	7.76	285	8.72	297	9.76	308	10.6	328	12.3	347	14.3	364	16.3
120	1228	-094	187	4.16	204	5.12	216	5.92	230	6.88	241	7.74	252	8.80	263	9.60	282	11.7	299	13.6	315	15.6
130	1050	-068	157	3.38	173	4.31	185	5.25	198	6.19	208	7.12	219	8.06	229	9.20	247	11.2	264	13.3	279	15.5
140	900	-051	134	3.04	149	3.92	162	4.96	173	5.94	184	6.72	194	7.80	203	8.68	220	11.0	236	13.2		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	2770	-480	695	26.4	730	30.0	765	33.8	796	37.7	829	41.6	858	45.6	885	49.6	912	53.6	935	57.6	961	61.2
90	2185	-300	545	23.0	581	25.9	614	29.9	642	33.8	675	37.8	696	41.6	724	46.4	748	50.4	770	54.4	795	58.8
100	1770	-196	448	19.7	481	23.4	511	27.6	539	31.6	564	36.0	584	40.4	612	44.8	634	49.2	658	53.6	680	58.0
110	1462	-134	380	18.3	410	22.4	438	26.8	464	31.0	488	35.6										
120	1228	-094	330	18.0	357	22.3	385	26.7														
130	1050	-068	293	18.0																		

40,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	2915	-530											630	20.8	639	21.6	657	23.2	678	24.9	696	26.8
90	2300	-331					440	12.8	450	13.6	461	14.5	472	15.4	482	16.4	503	18.2	524	20.0	543	22.0
100	1860	-214			327	8.64	336	9.60	348	10.0	360	11.3	372	12.4	382	13.2	403	15.0	423	17.1	441	19.0
110	1540	-148	243	6.04	258	6.84	270	7.76	283	8.72	294	9.64	308	10.7	317	11.6	336	13.4	355	15.5	372	17.6
120	1300	-106	195	4.80	210	5.60	222	6.56	235	7.52	247	8.56	258	9.60	268	10.4	287	12.4	304	14.5	320	16.8
130	1100	-075	162	3.76	177	4.70	190	5.64	202	6.76	213	7.70	223	8.82	233	9.78	251	12.1	267	14.1	282	16.4
140	950	-056	138	3.20	153	4.32	165	5.36	177	6.16	187	7.36	197	8.32	206	9.28	223	12.0	238	13.9	252	16.3

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	2915	-530	715	28.9	751	32.6	784	36.6	814	40.0	845	44.8	875	48.8	901	53.2	927	57.2	954	61.6	979	65.2
90	2300	-331	560	24.0	594	28.0	627	33.0	655	36.3	684	40.4	710	44.8	736	49.2	759	53.6	783	58.4	806	62.0
100	1860	-214	458	21.2	490	25.2	520	29.4	547	33.7	574	38.4	597	42.4	621	47.6	644	52.4	665	56.8	687	61.6
110	1540	-148	388	19.8	417	24.1	446	28.4	472	32.8	496	38.0										
120	1300	-106	335	19.2	362	23.5	389	28.1	413	32.9												
130	1100	-075	297	19.0																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

42,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET

SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	3050	.580																						
90	2415	.364																						
100	1955	.238	330	8.88	340	9.89	350	10.7	361	11.6	372	12.7	384	13.7	394	14.7	413	16.4	434	18.5	452	20.6		
110	1620	.163	252	6.60	267	7.54	278	8.48	291	9.42	302	10.5	313	11.5	324	12.6	344	14.5	361	16.6	378	18.8		
120	1360	.115	201	5.12	218	6.24	229	7.20	242	8.17	253	9.13	264	10.4	274	11.3	293	13.4	310	15.5	326	17.7		
130	1155	.083	168	4.31	183	5.25	195	6.20	207	7.30	218	8.44	228	9.39	238	10.3	256	12.9	272	15.0	287	17.2		
140	1000	.062	142	3.70	156	4.79	169	5.88	180	6.75	191	7.84	200	8.92	208	9.80	226	12.4	241	14.6	256	17.2		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	3050	.580	737	32.1	771	35.8	802	40.0	835	44.0	865	48.5	895	52.8	921	57.2	946	61.4	971	65.7	998	69.9
90	2415	.364	574	26.0	607	30.2	640	34.3	668	38.6	695	43.2	723	47.6	748	52.4	770	56.8	795	61.5	819	65.4
100	1955	.238	468	23.1	500	27.2	530	31.7	557	36.1	583	40.8	607	45.2	630	50.7	652	55.4	674	60.3	692	64.7
110	1620	.163	394	21.1	423	25.6	452	30.2	477	34.6	504	39.8	523	44.7	545	50.0	566	55.1	585	60.5		
120	1360	.115	341	20.3	368	24.8	395	29.6	418	34.4	440	39.7										
130	1155	.083	302	19.8	227	24.5	351	29.8														
140	1000	.062	269	19.8																		

44,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	3200	.640																						
90	2525	.399																						
100	2055	.264																						
110	1700	.181	263	7.36	276	8.44	286	9.40	298	10.3	309	11.5	321	12.6	330	13.5	350	15.6	368	17.7	385	20.0		
120	1420	.126	208	5.76	223	6.72	235	7.76	247	8.80	258	9.92	269	11.2	279	12.0	298	14.4	315	16.4	330	18.8		
130	1212	.092	172	4.70	187	5.82	198	6.76	211	7.90	222	9.02	232	10.1	242	11.2	260	13.5	276	15.9	291	18.2		
140	1047	.068	146	4.16	160	5.04	172	6.08	183	7.26	193	8.00	203	9.44	212	10.4	229	12.9	244	15.2	259	18.0		
150	910	.052	126	3.50	140	4.50	152	5.75	162	6.75	172	7.75	181	9.00	190	10.2	206	12.9						

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	3200	.640	760	35.3	795	39.5	827	44.0	855	48.0	885	52.4	915	57.2	941	61.6	966	66.0	991	70.4	1017	74.8
90	2525	.399	589	28.3	621	32.8	654	37.1	681	41.6	710	46.4	736	50.8	760	55.6	784	60.4	806	65.2	830	69.6
100	2055	.264	476	24.4	508	28.8	538	33.6	564	38.4	590	42.4	615	47.6	637	52.8	660	57.6	680	62.4	702	67.2
110	1700	.181	401	22.4	431	26.8	458	31.6	483	36.4	515	40.1	529	46.8	551	52.4	571	57.6	591	62.8	612	68.0
120	1420	.126	345	21.4	372	25.6	399	31.2	422	36.0	445	41.6	465	47.2	485	52.8	505	58.4	522	64.4	541	69.6
130	1212	.092	305	21.0	330	25.6	354	31.2														
140	1047	.068	272	20.8	296	26.0																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. CUR
STANDARD
BAROMETRIC

Fan Size	Outlet Velocity ft. per min.
80	3340
90	2640
100	2130
110	1765
120	1485
130	1265
140	1090
150	950

Fan Size	Outlet Velocity ft. per min.
80	3340
90	2640
100	2130
110	1765
120	1485
130	1265
140	1090

Fan Size	Outlet Velocity ft. per min.
90	2760
100	2235
110	1848
120	1552
130	1320
140	1138
150	1000

Fan Size	Outlet Velocity ft. per min.
90	2760
100	2235
110	1848
120	1552
130	1320
140	1138

MATTHE

CYCLONE

H.S.
FANS

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

46,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		11" RH		12" RH		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
80	3340	.697																									
90	2640	.435								502	18.9	512	19.9	522	21.1	530	22.0	547	24.2	568	26.2	586	28.3				
100	2130	.283			366	12.2	375	13.2	384	14.1	395	15.3	406	16.4	416	17.4	435	19.4	454	21.7	471	24.1					
110	1765	.195	273	8.35	286	9.42	296	10.3	307	11.4	318	12.6	329	13.7	339	14.6	358	16.8	376	19.1	392	21.5					
120	1485	.138	216	6.40	231	7.52	242	8.65	254	9.60	264	10.7	275	12.0	285	12.9	303	15.1	320	17.6	336	20.0					
130	1265	.100	177	5.21	192	6.34	203	7.46	215	8.58	226	9.50	236	10.7	246	11.8	264	14.2	279	16.7	294	19.1					
140	1090	.074	150	4.36	164	5.45	175	6.55	187	7.63	197	8.72	207	9.81	216	11.1	232	13.9	248	16.1	261	18.7					
150	950	.056	129	3.75	142	5.00	154	6.25	165	7.25	174	8.50	184	9.50	192	10.7	208	13.7	223	16.2							

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	3340	.697	785	39.0	816	43.4	850	47.9	878	52.2	906	56.9	935	61.7	962	66.4	988	71.0				
90	2640	.435	602	30.6	635	35.1	666	39.6	694	44.4	723	49.3	750	53.8	774	59.0	796	63.6	820	68.6	843	73.0
100	2130	.283	487	26.4	519	31.1	549	36.0	575	40.5	601	45.5	624	50.5	648	56.0	669	61.0	690	66.5	713	71.0
110	1765	.195	407	23.9	437	28.6	465	33.3	490	38.5	514	43.9	536	49.1	557	54.7	577	60.4	598	65.8	618	70.9
120	1485	.138	351	22.6	378	27.4	404	32.6	427	37.6	450	43.5	470	49.3								
130	1265	.100	308	21.9	333	27.0	358	32.4	380	37.9												
140	1090	.074	275	21.8	298	27.2																

48,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH		11" RH		12" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	2760	.486									529	22.0	537	23.0	546	24.1	562	26.2	582	28.4	600	30.6				
100	2235	.313					387	14.6	396	15.5	407	16.8	417	18.0	427	19.0	445	21.5	464	23.2	481	25.7				
110	1848	.213	284	9.10	295	10.2	305	11.4	316	12.3	326	13.7	337	14.8	346	15.8	365	18.1	384	20.4	400	22.8				
120	1552	.151	223	7.20	237	8.16	248	9.44	260	10.4	270	11.6	281	12.8	290	13.7	309	16.1	325	18.5	341	21.1				
130	1320	.108	183	5.81	196	6.94	208	8.08	219	9.00	230	10.5	241	11.6	250	12.5	268	15.2	284	17.6	299	20.3				
140	1138	.081	154	4.80	167	5.76	179	6.88	190	8.16	200	9.28	210	10.5	219	11.6	236	14.4	251	16.9	265	19.5				
150	1000	.062	132	4.25	146	5.50	159	6.75	168	7.75	179	9.00	186	10.2	194	11.2	211	14.2	225	16.7	238	19.7				

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	2760	.486	617	33.0	649	37.6	679	42.4	707	47.2	734	52.4	760	57.2	786	62.4	807	67.2	830	72.4	854	76.8
100	2235	.313	497	28.3	528	32.8	558	37.9	583	42.8	610	48.0	634	53.2	656	58.8	675	64.0	698	69.2	720	74.4
110	1848	.213	416	25.6	445	30.2	472	35.6	497	40.8	520	46.0	541	51.2	564	57.6	584	62.8	602	68.4	622	73.6
120	1552	.151	356	24.0	383	28.8	409	34.2	432	39.3	454	45.2	474	51.2	494	57.2						
130	1320	.108	313	23.1	338	28.3	362	34.0	384	39.6												
140	1138	.081	278	22.8	301	28.3	324	33.9														

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

50,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	2875	5.15							547	24.4	555	25.6	565	26.7	580	28.8	598	30.9	616	33.2		
100	2325	3.37			293	15.0	400	18.1	409	17.2	418	18.3	428	19.5	437	20.6	456	23.0	475	25.2	492	27.8
110	1920	2.20	295	10.3	305	11.4	314	12.6	324	13.6	335	14.9	345	16.1	354	17.3	373	19.4	391	21.8	407	24.4
120	1675	1.62	321	7.80	345	8.95	355	10.1	366	11.2	376	12.5	386	13.7	396	15.0	414	17.3	431	19.8	447	22.4
130	1375	1.08	368	6.48	392	7.50	413	8.63	424	9.75	435	11.0	445	12.3	454	13.5	472	15.9	488	18.3	502	21.2
140	1190	.888	418	5.44	471	6.52	482	7.60	494	8.70	504	10.0	514	11.3	523	12.4	539	15.2	554	17.8	568	20.6
150	1030	.664	475	4.50	548	5.75	560	7.00	570	8.25	580	9.55	589	10.8	598	12.0	614	15.0	627	17.5	641	20.5
160	910	.511	538	3.79	631	5.41	642	6.55	652	7.70	661	8.82	670	10.2	678	11.6	693	14.8	706	17.6		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	2875	5.15	612	36.0	664	40.3	694	45.6	721	50.5	749	55.8	775	61.0	799	66.5	822	71.5	844	76.7	867	81.5
100	2325	3.37	507	20.0	538	21.3	567	23.0	592	25.0	618	26.8	642	28.0	665	30.0	685	32.2	706	34.8	729	37.8
110	1920	2.20	452	17.0	481	18.3	509	19.7	534	21.6	557	23.6	579	25.8	599	28.0	618	30.4	637	33.0	657	35.8
120	1675	1.62	401	14.1	429	15.4	456	16.9	481	18.6	504	20.4	526	22.4	547	24.6	567	27.0	586	29.6	605	32.4
130	1375	1.08	354	11.4	381	12.7	407	14.2	431	15.9	453	17.6	474	19.6	494	21.8	513	24.2	531	26.8	549	29.6
140	1190	.888	311	9.4	337	10.7	362	12.3	385	14.0	406	15.8	426	17.8	445	19.8	463	22.0	480	24.4	497	27.0
150	1030	.664	271	7.7	296	8.9	321	10.3	343	11.8	364	13.4	384	15.2	403	17.2	421	19.4	438	21.8	455	24.4

52,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	2875	5.15							567	27.2	575	28.4	585	29.6	598	31.6	615	33.8	632	36.4		
100	2325	3.37							421	18.8	430	20.1	439	21.3	448	22.4	465	24.9	483	27.3	501	29.8
110	1920	2.20			321	15.6	333	16.9	345	18.0	354	19.3	363	20.5	372	21.8	388	24.2	405	26.8	422	29.4
120	1675	1.62	328	8.64	352	9.90	371	11.0	387	12.1	401	13.4	415	14.7	428	16.0	440	18.4	451	20.9	462	23.4
130	1375	1.08	291	7.14	315	8.36	334	9.40	351	10.5	366	11.8	380	13.1	393	14.4	405	16.8	416	19.2	427	21.8
140	1190	.888	251	5.85	275	6.85	294	7.80	311	8.80	326	9.80	340	10.8	353	12.1	365	14.5	376	16.9	387	19.4
150	1030	.664	211	4.85	235	5.85	254	6.80	271	7.85	287	8.85	301	9.85	314	10.8	326	13.2	337	15.6	348	18.1
160	910	.511	181	4.18	205	5.40	224	6.40	241	7.40	257	8.40	271	9.40	284	10.4	296	12.8	307	15.2	318	17.7

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		3" RH		4" RH		5" RH		6" RH		8" RH		10" RH		12" RH		14" RH		16" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	2875	5.15	488	25.2	529	28.0	569	30.8	609	33.6	649	36.4	689	39.2	729	42.0	769	44.8	809	47.6	849	50.4
100	2325	3.37	397	20.4	437	22.7	477	25.0	517	27.3	557	29.6	597	31.9	637	34.2	677	36.5	717	38.8	757	41.1
110	1920	2.20	347	17.6	387	19.9	427	22.2	467	24.5	507	26.8	547	29.1	587	31.4	627	33.7	667	36.0	707	38.3
120	1675	1.62	307	14.8	347	17.1	387	19.4	427	21.7	467	24.0	507	26.3	547	28.6	587	30.9	627	33.2	667	35.5
130	1375	1.08	267	12.0	307	14.3	347	16.6	387	18.9	427	21.2	467	23.5	507	25.8	547	28.1	587	30.4	627	32.7
140	1190	.888	227	10.2	267	12.5	307	14.8	347	17.1	387	19.4	427	21.7	467	24.0	507	26.3	547	28.6	587	30.9
150	1030	.664	187	8.4	227	10.7	267	13.0	307	15.3	347	17.6	387	19.9	427	22.2	467	24.5	507	26.8	547	29.1

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H.S.
FANS

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

56,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	3215	.646															612	33.8	619	35.1	630	37.4	647	40.0	663	42.4
100	2608	.426													456	24.0	465	25.2	472	26.5	490	29.1	508	31.6	523	34.2
110	2165	.293							334	15.0	342	16.2	351	17.4	360	18.8	370	20.1	379	21.4	397	23.7	415	26.4	430	29.5
120	1808	.204	255	10.5	266	11.8	275	13.2	285	14.2	295	15.5	305	16.9	314	18.2	331	20.8	347	23.5	362	26.4	376	29.5	390	32.6
130	1540	.148	206	8.45	219	9.58	229	10.8	240	12.2	250	13.7	260	15.0	268	16.3	285	18.9	300	21.8	315	23.8	330	26.8	345	29.8
140	1325	.110	170	6.72	184	8.00	194	9.28	205	10.8	215	12.1	224	13.7	233	14.7	249	17.6	263	20.6	278	23.5	293	26.5	308	29.5
150	1160	.084	146	5.75	158	7.00	168	8.25	179	9.75	189	11.2	198	12.5	206	13.7	222	17.2	235	20.0	248	23.0	262	26.0	276	29.0
160	1018	.065	125	4.80	138	6.24	149	7.68	159	9.12	168	10.2	176	11.8	184	13.2	199	16.6	212	19.5	225	22.7	238	25.7	251	28.7

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	3215	.646	679	45.6	708	50.8	737	56.4	764	61.6	789	67.2	817	73.2	840	78.8	861	84.4	884	90.4	905	96.0
100	2608	.426	538	37.1	568	42.4	595	48.0	620	53.6	646	60.0	670	67.6	693	71.6	713	77.6	735	83.6	755	88.8
110	2165	.293	445	32.4	473	38.0	500	43.6	523	49.2	547	55.2	569	61.6	590	68.4	609	74.4	628	80.8	647	85.6
120	1808	.204	377	29.6	404	35.2	429	40.8	452	47.2	473	53.6	494	59.6	513	66.8	532	73.2	550	80.0	568	85.6
130	1540	.148	329	28.0	354	33.6	378	40.0	399	46.2	420	53.1	438	59.8								
140	1325	.110	290	27.0	313	33.1	337	39.6	357	46.0	375	52.8										
150	1160	.084	261	26.5	283	32.8	304	39.8														
160	1018	.065	236	26.7																		

60,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
100	2798	.490												489	29.6	496	31.0	510	33.2	528	36.1	545	38.8
110	2315	.335					360	18.8	368	20.0	377	21.7	386	23.2	396	24.4	412	27.1	429	29.9	444	32.8	
120	1940	.235			280	13.7	289	15.2	298	16.4	307	17.9	317	19.3	326	20.8	343	23.2	359	26.4	374	29.2	
130	1650	.170	218	9.75	230	11.2	239	12.5	249	13.8	258	15.4	268	16.8	277	18.2	294	21.0	309	24.0	323	27.2	
140	1420	.126	179	8.00	192	9.28	201	10.8	212	12.1	222	13.7	231	15.2	240	16.4	256	19.5	270	22.5	284	25.9	
150	1240	.096	151	6.50	164	8.00	174	9.50	184	11.0	194	12.5	202	14.0	211	15.2	227	18.7	241	21.5	253	25.0	
160	1087	.074	131	5.76	143	7.04	153	8.48	163	10.2	172	11.8	180	13.1	189	14.5	203	18.4	216	20.9	229	24.4	
170	965	.058	115	5.12	127	6.74	137	8.35	147	9.63	155	10.9	163	12.5	171	14.1	185	18.0	197	21.5			

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	2798	.490	558	41.6	587	47.6	615	53.6	640	59.6	664	66.0	688	72.0	710	78.4	730	84.8	752	91.2	772	96.8
110	2315	.335	458	35.9	487	41.6	514	47.6	536	53.6	559	60.4	581	66.4	603	73.6	620	80.0	641	86.8	660	92.4
120	1940	.235	388	32.8	415	38.7	440	44.8	462	51.2	484	58.0	504	64.4	523	72.0	542	78.8	560	85.6	577	92.0
130	1650	.170	336	30.4	361	36.6	385	43.1	406	49.7	426	57.2	445	63.8	464	71.6	481	78.8				
140	1420	.126	297	29.4	320	35.6	342	42.4	363	48.8	382	56.8	399	64.4								
150	1240	.096	265	28.7	287	35.2	308	42.5														
160	1087	.074	240	28.4	261	35.5																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S.
FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

64,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	2980	.557													507	34.5	521	36.0	534	38.5	551	41.2	567	44.0		
110	2470	.382											388	23.6	396	25.2	404	26.8	412	28.2	430	31.2	445	34.0	460	37.1
120	2060	.265			295	16.1	303	17.4	312	18.8	320	20.4	330	21.9	338	23.5	355	26.2	370	29.4	385	32.6	395	35.0	405	37.5
130	1760	.194	231	11.6	242	13.1	250	14.4	260	15.9	268	17.6	278	19.1	287	20.4	303	23.4	318	26.6	332	30.0	342	32.4	352	34.8
140	1515	.144	189	9.28	201	11.5	210	12.1	221	13.7	229	15.3	239	16.9	247	18.4	263	21.2	277	24.8	291	28.3	301	30.7	311	33.1
150	1320	.109	158	7.75	170	9.25	180	10.7	190	12.0	200	14.0	208	15.5	217	16.7	232	20.2	246	23.5	259	27.0	273	30.3	287	33.6
160	1162	.084	136	6.40	148	8.00	158	9.60	168	11.3	176	12.8	185	14.4	194	15.8	207	19.3	220	22.7	233	26.4	246	30.0	259	33.6
170	1030	.067	119	5.78	131	7.40	141	9.00	150	10.6	159	11.8	167	13.5	174	15.4	188	19.2	201	22.4	212	26.3	225	30.1	237	33.9

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	2980	.557	580	47.6	609	53.6	635	60.0	660	66.4	683	72.8	707	79.2	730	85.6	749	92.8	769	99.2	790	105.6
110	2470	.382	474	40.0	501	46.4	529	52.8	551	59.2	574	66.4	595	73.2	616	80.8	635	87.2	653	94.0	674	100.4
120	2060	.265	399	36.0	425	42.4	450	48.8	472	55.6	494	62.4	514	69.6	531	77.6	551	84.4	569	92.0	587	98.4
130	1760	.194	345	33.3	370	39.7	393	46.6	414	53.6	435	61.1	453	68.5	471	76.2	487	84.0	506	91.5	523	98.5
140	1515	.144	304	31.6	326	38.2	349	45.6	369	52.8	387	60.8	405	68.4	422	76.8	439	84.8				
150	1320	.109	271	30.8	291	37.8	313	45.2	332	52.8	350	60.8										
160	1162	.084	245	30.4	265	37.7	285	45.2	303	52.8												
170	1030	.067	223	30.5																		

68,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	3170	.628													541	40.0	547	41.2	559	44.0	573	47.2	589	50.4		
110	2620	.428									409	27.6	417	29.4	425	30.8	432	32.4	447	35.6	464	38.4	478	41.6		
120	2200	.302			311	18.5	318	20.1	326	21.6	334	23.3	343	24.9	351	26.4	367	29.4	383	32.8	397	36.1	405	39.5		
130	1870	.218	243	13.5	253	15.0	261	16.5	270	17.8	278	19.7	288	21.4	296	22.9	312	25.8	326	29.2	340	32.8	352	36.4		
140	1615	.163	198	10.5	210	13.1	219	13.7	228	15.2	237	17.1	246	18.7	254	20.4	270	23.5	284	27.0	297	30.5	311	34.0		
150	1405	.123	166	8.75	178	10.5	187	13.0	197	13.7	206	16.5	215	17.2	223	18.7	238	22.0	251	25.5	264	29.0	278	32.4		
160	1232	.095	143	7.68	153	9.08	163	10.8	173	12.4	181	14.2	190	15.6	198	17.3	212	21.2	226	24.4	238	28.4	251	32.4		
170	1085	.075	123	6.42	133	8.02	144	9.64	154	11.2	162	12.8	170	14.4	178	16.3	192	20.5	204	23.8	215	27.6	228	31.8		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	3170	.628	602	54.0	630	60.0	657	67.2	680	73.6	704	80.4	728	87.2	750	94.4	769	101.6	789	108.4	807	115.2
110	2620	.428	491	45.2	519	52.0	541	58.4	565	65.2	589	72.8	609	78.4	631	87.2	649	94.4	669	101.2	687	108.0
120	2200	.302	410	39.6	437	46.4	461	53.6	482	60.0	505	67.6	524	74.8	543	83.2	561	90.4	579	97.6	599	104.8
130	1870	.218	353	34.4	378	43.1	402	50.3	422	57.5	442	65.5	461	72.6	479	81.4	497	89.1	513	97.0	529	104.1
140	1615	.163	310	34.3	333	41.2	355	48.8	375	56.0	394	64.0	410	72.0	427	80.8						
150	1405	.123	276	33.0	297	40.2	319	48.0	337	55.8	355	64.2										
160	1232	.095	249	32.6	269	40.0																
170	1085	.075	226	32.1	246	40.0																

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

**H·S
FANS**

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

72,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	3350	·700																	575	47·2	587	50·4	599	54·0
110	2780	·482											436	33·8	443	35·4	451	36·8	464	40·0	479	43·2	495	46·0
120	2325	·337									333	23·2	340	24·8	348	26·5	356	28·1	365	29·6	379	33·1	395	36·4
130	1980	·245							265	17·2	272	18·7	281	20·2	289	22·1	298	23·8	305	25·5	321	28·5	336	32·3
140	1706	·181	209	12·3	219	13·7	227	15·6	286	17·2	295	19·3	253	20·8	262	22·4	277	25·7	291	29·2	291	29·2	304	33·1
150	1485	·137	172	10·0	183	11·7	193	13·5	203	15·0	211	16·7	219	18·5	228	20·0	241	23·5	254	27·2	267	31·0	277	34·8
160	1308	·106	146	8·48	159	10·2	167	11·8	177	13·9	186	15·6	194	17·2	202	19·0	216	22·7	229	26·4	241	30·0	254	33·8
170	1160	·084	128	7·38	139	9·00	149	10·5	158	12·5	166	14·4	174	16·0	182	17·6	196	22·1	207	25·6	219	29·5	231	33·4

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	3350	·700	627	61·6	653	68·0	678	74·8	702	81·6	724	89·2	747	96·4	770	104·0						
110	2780	·482	506	50·0	534	56·8	559	64·4	581	71·2	603	78·8	625	86·4	645	94·4	663	102·0	682	109·2	701	116·4
120	2325	·337	422	43·6	448	50·8	472	58·0	493	64·8	515	72·8	534	80·8	554	88·8	571	96·8	591	104·8	607	112·0
130	1980	·245	362	40·0	386	47·1	410	54·8	431	62·3	452	70·4	468	78·0	487	87·2	504	95·2	520	103·6	537	111·0
140	1706	·181	316	37·1	339	44·4	362	52·0	382	59·6	400	67·8	417	76·8	434	85·6	451	94·4	465	103·2		
150	1485	·137	288	35·0	309	42·5	328	50·7	346	58·0	363	67·5	379	76·5	395	85·8						
160	1308	·106	252	34·4	273	42·0	292	50·4														
170	1160	·084	230	34·0	249	42·1																

76,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH			
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
110	2930	·532													456	38·6	462	40·0	469	41·6	482	44·8	497	48·0	511	51·6
120	2450	·375					349	26·4	355	28·1	362	29·9	370	31·6	377	33·4	392	36·9	408	40·4	422	44·0	438	47·6	454	50·2
130	2085	·271			276	19·5	283	21·0	291	22·5	299	24·6	307	26·4	315	28·3	330	31·3	345	35·1	358	39·2	373	43·1	389	47·9
140	1802	·204	219	14·0	228	15·8	235	17·6	244	19·3	252	21·2	261	23·0	269	24·9	284	28·3	298	32·0	311	35·8	326	39·6	341	43·5
150	1570	·153	181	11·5	192	13·2	201	15·0	210	16·7	218	18·7	227	20·7	235	22·5	249	26·2	262	30·0	274	33·7	288	37·4	302	41·1
160	1380	·119	153	9·60	165	11·3	173	13·1	183	15·0	191	16·9	199	19·0	207	20·8	221	24·4	234	28·3	246	32·6	259	36·4	273	40·2
170	1220	·092	132	8·35	144	10·2	153	11·8	162	13·8	170	15·7	178	17·6	186	19·2	199	23·8	211	27·3	222	31·5	234	35·3	247	39·6

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	2930	·532	524	56·0	549	62·8	574	70·4	597	77·6	618	85·6	640	92·6	659	101·6	676	109·6	696	117·6		
120	2450	·375	434	47·6	459	55·2	484	62·8	504	70·4	525	79·2	545	86·4	564	95·2	581	103·2	599	111·6	617	118·8
130	2085	·271	371	43·1	393	50·6	418	58·5	437	66·6	458	74·7	476	82·7	494	92·2	510	100·4	527	109·1	544	117·1
140	1802	·204	323	40·0	346	47·6	368	55·6	387	64·0	406	72·4	423	81·2	439	91·2	456	100·0	471	108·8	489	116·8
150	1570	·153	286	38·0	308	46·0	329	54·2	347	62·7	365	72·2	381	81·0	397	91·0						
160	1380	·119	257	36·9	277	44·8	297	53·2	315	62·0	331	72·0										
170	1220	·092	233	36·3																		

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

80,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3085	.591													481	44.8	487	46.4	499	50.0	512	53.2	525	57.2
120	2590	.420									370	31.6	377	33.9	384	35.5	391	37.2	405	40.8	420	44.4	433	48.4
130	2200	.302			287	21.6	294	23.6	301	25.5	310	27.4	317	29.3	324	31.1	339	34.7	354	38.6	368	42.6		
140	1898	.226			239	17.9	244	19.5	252	21.1	260	23.2	269	25.2	277	27.2	292	30.4	305	34.3	317	38.2		
150	1650	.170	189	13.0	199	15.0	207	16.7	216	18.5	224	20.5	232	22.5	240	24.2	254	28.0	268	32.0	280	36.2		
160	1455	.131	158	10.8	170	12.7	178	14.0	187	16.1	195	18.5	203	20.4	211	22.4	225	25.9	238	30.0	250	34.5		
170	1290	.104	137	9.32	148	11.2	157	13.1	166	15.1	175	17.3	182	19.2	189	20.8	203	25.0	215	29.2	227	33.7		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3085	.591	539	61.6	565	68.8	586	76.8	609	84.4	630	92.8	653	100.8	675	109.2	690	117.2	709	125.6		
120	2590	.420	445	52.0	470	60.0	495	68.0	515	76.0	536	84.8	556	92.8	575	102.0	592	110.0	609	118.8	627	126.4
130	2200	.302	380	46.9	404	54.6	427	62.9	447	70.7	467	79.7	484	87.2	502	97.6	519	106.2	536	115.8	552	123.6
140	1898	.226	330	42.8	352	50.8	374	58.8	393	67.6	412	76.8	429	84.8	446	95.6	462	104.0	477	113.6	492	122.4
150	1650	.170	292	40.5	313	48.7	334	57.5	352	66.2	370	76.4										
160	1455	.131	261	39.7	281	47.2	300	56.8	316	65.2	335	75.2										
170	1290	.104	237	38.5	256	47.2	275	56.5														

84,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3230	.660													502	50.8	506	52.4	517	56.0	531	59.6	544	63.6
120	2715	.460									385	36.0	392	38.0	398	39.6	405	41.6	418	45.6	437	48.8	446	52.8
130	2310	.332			301	25.2	307	27.0	314	28.9	321	30.8	329	32.8	336	34.9	350	38.5	364	42.4	377	46.6		
140	1992	.248	238	18.4	246	20.0	252	21.7	260	23.5	268	25.6	276	27.6	283	29.6	298	33.1	312	37.4	324	41.6		
150	1740	.188	197	15.0	206	16.7	214	18.5	223	20.2	230	22.7	238	24.7	246	26.5	260	30.2	273	34.5	286	38.7		
160	1522	.144	165	12.2	176	14.2	184	16.2	193	17.9	200	20.4	209	22.4	217	24.1	230	27.8	243	32.4	255	36.9		
170	1350	.113	142	10.2	153	12.5	162	14.4	171	16.3	178	18.3	186	20.0	193	22.8	206	26.9	219	31.1	230	35.6		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3230	.660	536	68.4	580	76.0	603	84.4	625	92.0	646	100.4	669	109.2	688	118.0	705	126.4	723	135.2	742	143.2
120	2715	.460	458	57.2	481	65.0	504	73.6	526	82.4	547	91.2	567	99.6	585	108.8	602	117.6	620	126.4	637	135.2
130	2310	.332	389	51.0	412	59.4	435	67.8	455	76.1	474	85.4	493	94.4	511	103.8	527	113.5	544	122.5	560	131.0
140	1992	.248	336	46.4	359	54.4	381	63.6	399	72.4	418	81.6	435	90.8	452	99.6	467	110.4	482	120.0	498	129.2
150	1740	.188	297	43.7	318	52.0	339	61.2	357	70.0	375	80.0	391	89.5								
160	1522	.144	266	41.6	286	50.4	305	59.6	323	68.8	339	79.2										
170	1350	.113	241	40.8	260	49.8	278	59.4	295	69.0												

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H.S.
FANS

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

88,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3400	-720													526	57.2	536	61.2	548	65.2	560	69.2
120	2842	-505													419	46.4	431	50.4	445	53.6	459	57.6
130	2420	-364													347	38.3	359	42.2	375	46.4	387	50.7
140	2085	-271			256	22.4	262	24.3	270	26.2	277	28.6	285	30.4	292	32.6	306	36.4	320	40.8	332	45.6
150	1820	-206			206	18.7	214	20.5	221	22.5	230	24.7	237	26.7	245	29.0	252	32.7	266	37.3	279	41.7
160	1600	-160	172	13.6	182	15.2	190	17.6	199	19.5	206	21.6	214	24.1	223	26.0	235	30.4	247	34.7	260	39.2
170	1415	-125	147	11.5	158	13.5	166	15.7	175	17.6	182	19.9	190	22.1	197	24.4	210	28.9	222	33.0	233	37.9

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
110	3400	-720	574	74.4	597	82.0	619	90.4	640	98.4	661	107.2	684	116.4	705	125.2	720	134.0	739	142.8	757	151.6
120	2842	-505	470	62.4	495	70.8	517	79.6	537	88.0	558	97.6	578	106.4	597	116.4	613	125.2	630	134.4	647	142.8
130	2420	-364	399	55.2	422	63.8	446	72.7	464	81.7	483	91.2	502	100.6	520	110.3	535	119.8	552	129.2	568	137.8
140	2085	-271	343	50.0	367	58.4	388	68.0	406	77.2	425	86.4	442	96.0	460	107.2	475	116.4	490	126.8	505	136.0
150	1820	-206	291	46.5	303	55.2	324	64.7	345	74.2	362	84.3	380	94.2	396	105.2	412	115.7	427	126.0	441	135.0
160	1600	-160	270	44.0	290	52.8	310	63.2	327	72.8	343	83.6	358	93.6	373	105.2						
170	1415	-125	244	43.0	263	52.0	281	62.3	298	72.2	314	83.5	328	94.7								

92,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		2" RH		3" RH		4" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
120	2975	-550													422	47.2	428	49.2	433	51.2	445	55.2
130	2525	-400													342	37.7	349	39.8	356	41.8	369	46.1
140	2180	-297			270	25.0	274	27.2	278	28.9	286	31.4	293	33.5	300	35.7	314	39.8	327	44.4	340	48.8
150	1900	-225	214	18.8	222	20.8	228	22.8	236	24.8	244	27.0	251	29.2	259	31.5	272	35.2	285	40.0	297	44.5
160	1680	-176	180	15.6	189	17.6	196	19.6	204	21.6	212	24.1	219	26.4	227	28.4	240	32.7	255	37.2	264	42.0
170	1480	-137	152	12.8	162	15.1	170	17.3	179	19.2	187	21.5	194	24.1	201	26.0	214	30.4	226	35.3	237	40.1

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
120	2975	-550	483	68.0	507	76.8	529	86.4	549	94.8	569	104.8	589	114.4	607	124.0	623	133.6	641	143.2	657	152.0
130	2525	-400	407	59.1	431	68.5	453	77.4	472	86.7	491	96.8	510	106.0	527	116.2	542	126.0	558	136.0	575	144.7
140	2180	-297	351	53.6	373	62.8	395	72.8	413	81.6	431	91.6	448	101.6	465	112.4	481	122.4	495	133.2	510	140.8
150	1900	-225	308	50.0	328	58.8	350	68.5	368	78.5	385	88.9	401	98.9	417	110.4	431	121.0	446	131.2		
160	1680	-176	275	47.2	295	56.4	314	66.8	332	76.8	348	88.4	363	98.4	382	110.4						
170	1480	-137	248	45.3	265	54.9	286	65.5	302	75.5	317	87.4	332	99.0								

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H·S FANS

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

96,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

BAROMETRIC PRESSURE 30" Hg 70,000 CFM W.																								
Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
120	3100	.603													443	54.4	448	56.8	459	60.8	472	64.8	484	69.6
130	2640	.435								347	39.4	354	41.6	361	44.1	367	46.0	379	50.5	393	54.6	406	59.1	
140	2268	.325						280	29.6	287	31.8	293	34.2	301	36.4	308	38.5	322	42.8	335	47.2	347	52.0	
150	1985	.246			230	23.0	236	25.0	243	27.0	250	29.5	258	31.8	265	34.0	278	38.0	291	43.0	303	48.0		
160	1740	.190	185	16.9	193	19.2	200	21.1	208	23.6	216	25.9	223	28.1	231	30.0	243	34.5	254	39.0	267	44.0		
170	1550	.150	157	14.4	167	16.3	175	18.9	184	20.8	191	23.4	199	25.7	206	27.6	219	32.4	230	37.2	241	42.4		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
120	3100	.603	495	74.4	519	83.2	540	92.8	560	102.4	580	112.0	600	122.0	618	132.0	635	141.6	652	151.6	669	160.0
130	2640	.435	416	64.0	439	73.1	461	82.6	480	92.8	500	102.9	518	112.1	535	123.1	551	132.5	566	143.0	583	152.1
140	2268	.325	357	57.2	380	66.0	402	76.4	420	85.6	438	96.4	455	106.4	472	117.6	487	128.4	500	139.2	516	148.8
150	1985	.246	314	53.2	335	62.7	355	73.0	373	83.0	392	93.7	406	103.7	422	116.2	437	126.7	451	138.0	466	148.0
160	1740	.190	278	49.6	298	61.2	317	69.8	335	80.0	351	91.2	366	102.4	380	114.0	395	126.0	408	136.4	422	147.6
170	1550	.150	252	47.8	270	57.8	289	68.7	306	79.0	321	91.0	335	102.8								

100,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
120	3230	.651												460	60.4	464	62.4	474	66.4	486	71.2	493	76.0		
130	2750	.473												360	43.7	366	46.4	372	48.4	377	50.6	389	55.2	403	59.4
140	2370	.350					286	30.8	291	33.0	297	35.1	304	37.7	310	40.0	317	42.0	330	46.8	343	51.2	355	56.4	
150	2075	.268				237	25.2	243	27.2	250	29.5	257	31.8	264	34.2	271	36.8	284	38.5	297	44.5	308	51.2		
160	1820	.206	198	19.8	205	21.2	211	23.0	219	25.0	226	28.1	233	30.4	240	32.7	253	36.0	265	42.0	276	47.2			
170	1610	.162	163	15.7	173	18.0	180	20.2	188	22.4	195	25.0	203	27.6	210	30.2	222	34.6	234	39.8	245	44.9			

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
120	3230	.651	510	81.2	532	90.4	554	100.4	573	109.6	592	120.4	612	131.2	630	140.8	646	150.8	662	160.8	680	170.4
130	2750	.473	427	69.2	449	78.9	470	88.6	490	98.7	508	109.2	526	119.2	544	130.2	558	140.8	575	151.3	591	161.0
140	2370	.350	366	60.0	388	71.6	409	81.2	427	91.2	445	102.4	462	116.8	479	124.4	493	134.8	509	145.6	524	155.2
150	2075	.268	319	56.2	340	66.2	360	76.7	378	87.2	395	98.0	411	108.7	426	121.2	441	132.0	455	143.7	470	154.0
160	1820	.206	287	52.8	307	62.8	326	73.2	342	84.4	359	95.2	374	106.4	389	120.0	403	131.2	416	142.8	430	153.2
170	1610	.162	253	50.4	274	61.0	292	72.0	309	82.9	324	95.0	338	106.8								

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H.S.
FANS

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

108,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1/2" RH		3/4" RH		1" RH		1 1/4" RH		1 1/2" RH		1 3/4" RH		2" RH		2 1/4" RH		2 1/2" RH		2 3/4" RH		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
130	2970	.552							390	55.5	395	58.0	401	60.3	411	64.7	423	69.4	435	74.3			
140	2580	.416						315	42.0	321	44.4	327	46.8	333	49.2	345	54.4	359	59.2	370	64.0		
150	2225	.311					258	32.8	264	35.0	271	37.7	278	40.2	284	42.8	298	47.5	309	52.5	321	58.0	
160	1955	.240	207	23.2	213	25.5	219	27.5	226	30.6	233	32.6	240	35.5	247	38.0	259	42.0	271	48.0	282	52.8	
170	1740	.190	174	19.2	182	21.5	189	23.8	196	26.0	203	29.2	211	31.8	217	34.0	229	38.9	241	44.4	252	49.8	

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
130	2970	.552	446	80.0	468	90.2	488	101.2	506	111.0	525	123.0	544	134.0	560	145.6	576	156.5	592	167.9	608	178.0
140	2580	.416	380	69.6	402	80.0	423	91.2	440	102.0	458	113.6	475	124.4	491	136.4	505	147.6	521	159.2	535	168.8
150	2225	.311	331	63.7	352	74.0	372	85.5	389	96.2	406	108.2	422	120.0	438	132.5	452	144.2	466	156.7	480	167.5
160	1955	.240	293	58.8	313	69.6	332	80.8	348	92.4	365	104.8	380	116.0	394	130.4	408	141.6	422	154.4	435	166.6
170	1740	.190	262	56.2	281	66.8	299	78.6	315	90.0	331	102.8	345	114.9	358	128.5	372	141.1	385	154.0	397	166.0

116,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	3/4" RH		1" RH		1 1/2" RH		2" RH		2 1/2" RH		3" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
130	3190	.638											422	69.4	426	71.8	434	77.0	446	82.0	457	87.5
140	2750	.474							334	50.4	339	53.6	346	56.0	351	58.4	362	63.6	374	68.4	386	73.6
150	2395	.360					275	39.3	280	41.8	286	45.0	292	47.5	299	50.0	311	55.5	323	61.0	334	66.5
160	2110	.278			226	30.0	232	32.6	238	35.2	244	38.3	251	40.8	257	43.6	270	48.4	282	54.0	292	60.0
170	1865	.218	186	23.1	193	25.6	200	28.2	206	30.5	213	33.7	220	36.6	226	38.8	238	44.3	250	50.0	260	56.1

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2 1/2" RH		3" RH		3 1/2" RH		4" RH		4 1/2" RH		5" RH		5 1/2" RH		6" RH		6 1/2" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
130	3190	.638	468	93.8	488	104.2	510	116.2	527	127.0	545	138.8	564	151.0	580	163.1	590	174.5	610	186.8	625	198.0
140	2750	.474	397	80.0	417	91.2	437	102.4	455	114.0	472	126.4	489	138.0	505	150.8	519	162.4	534	174.8	549	186.4
150	2395	.360	344	72.2	364	84.0	384	95.2	401	107.0	417	120.0	434	132.0	449	145.5	462	157.7	476	170.7	490	181.7
160	2110	.278	302	66.4	322	78.0	341	89.6	357	102.0	373	114.8	389	126.8	403	140.8	416	153.6	430	167.6	444	178.8
170	1865	.218	270	62.2	289	73.9	307	86.0	323	98.5	338	112.0	352	124.0	366	139.5	379	152.5	392	166.0	405	178.5

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

**H·S
FANS**

CYCLONE

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

128,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
140	3050	·581															375	70·8	379	74·4	391	78·8	400	84·8
150	2645	·437											302	53·2	308	56·2	313	58·8	318	61·6	330	67·4	342	73·1
160	2325	·338									250	40·8	255	44·0	261	47·2	267	49·6	273	52·8	284	55·6	296	64·4
170	2055	·264							208	32·4	216	34·7	220	37·4	227	40·7	233	43·9	239	46·9	251	52·0	262	58·8
																							410	91·2
																							352	79·7
																							307	70·8
																							273	65·0

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
140	3050	·581	420	98·4	440	110·0	460	122·8	477	134·8	493	148·8	510	161·6	526	174·4	540	187·2	555	201·6		
150	2645	·437	362	85·8	382	98·5	404	111·0	417	124·0	434	138·0	450	150·2	465	165·0	478	175·8	492	192·5	506	203·0
160	2325	·338	316	77·2	336	90·0	355	102·8	370	115·6	388	129·6	410	142·8	415	158·0	428	171·2	441	185·6	455	198·4
170	2055	·264	282	72·3	300	85·0	318	98·2	333	111·5	349	125·5	362	139·0	375	155·0	390	168·5	401	184·0	415	197·5

144,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
150	2975	·554													339	74·5	344	77·6	349	81·0	356	86·5	369	92·6
160	2620	·430											280	58·8	286	62·0	288	65·2	296	68·8	306	75·2	317	81·6
170	2320	·337									232	46·6	240	48·9	246	53·0	252	55·0	257	59·4	268	65·8	278	72·5
																							378	99·5
																							328	88·0
																							288	80·0

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
150	2975	·554	388	108·0	402	120·4	425	134·8	441	148·5	462	164·0	474	178·0	486	194·0	500	208·5	514	225·5	526	237·5
160	2620	·430	337	96·0	355	109·2	373	123·2	388	138·8	404	151·6	419	168·0	433	184·0	446	198·4	459	214·4	472	228·8
170	2320	·337	297	87·0	316	102·0	334	116·0	348	130·2	367	146·2	376	161·5	392	178·0	403	193·6	415	210·0	428	223·0

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

H.S. CURVED BACK FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

160,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
150	3210	·640															375	100·0	380	103·2	386	110·0	396	117·5	405	125·0
160	2915	·530															315	83·2	319	86·4	328	92·8	339	99·6	348	107·2
170	2580	·416									261	63·4	266	67·7	271	70·9	276	74·3	286	82·2	296	89·0	306	96·8		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
150	3210	·640	415	133·2	430	148·0	449	163·5	465	178·0	478	195·6	494	211·0	510	227·5	523	243·5	536	260·0	550	275·5
160	2915	·530	357	115·6	375	130·4	392	146·4	407	160·0	422	179·2	437	195·2	450	212·8	463	228·8	477	246·4	489	260·8
170	2580	·416	314	105·0	332	121·0	350	136·0	363	153·0	378	170·0	392	186·5	405	204·0	417	221·5	428	237·5	441	255·0

176,000 C.F.M.

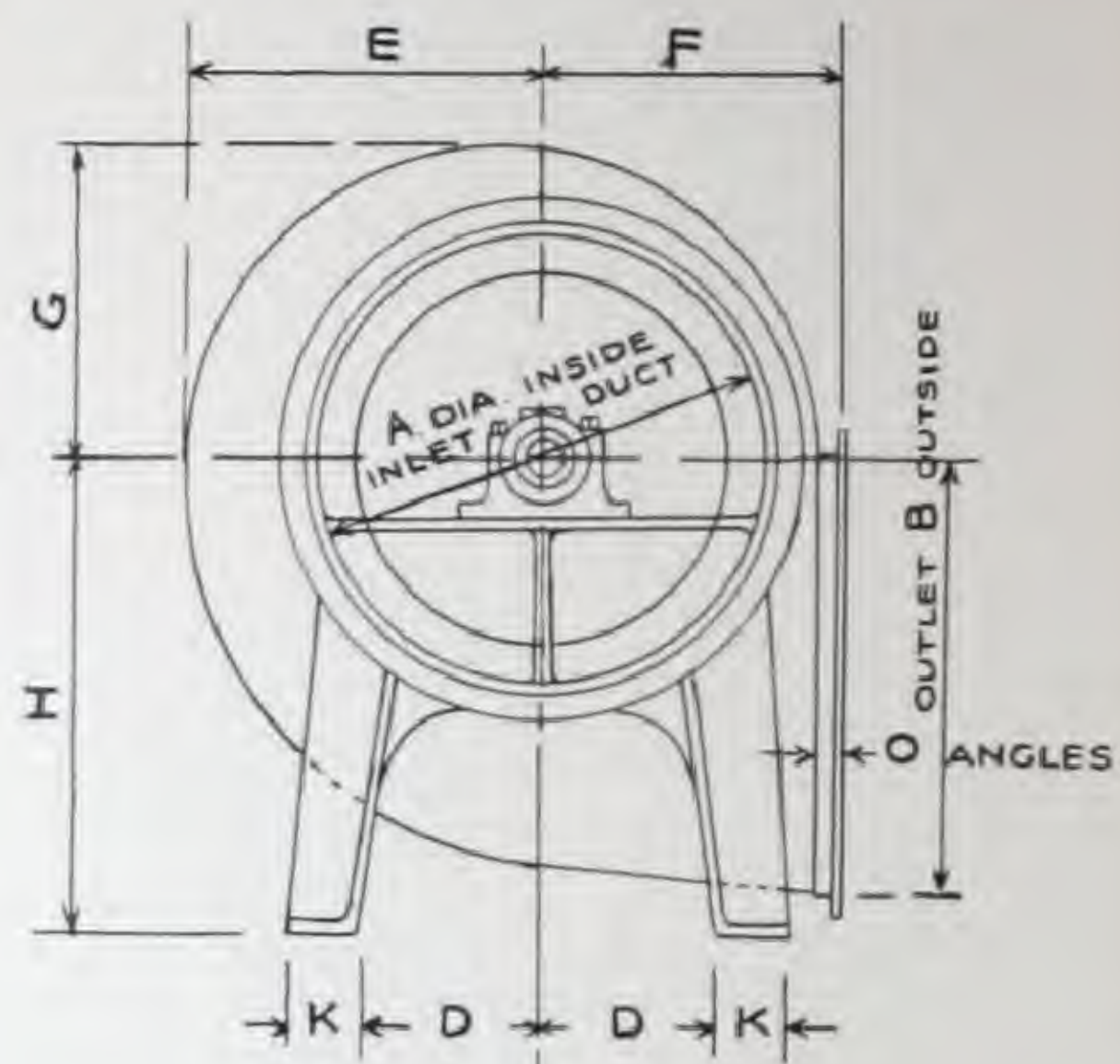
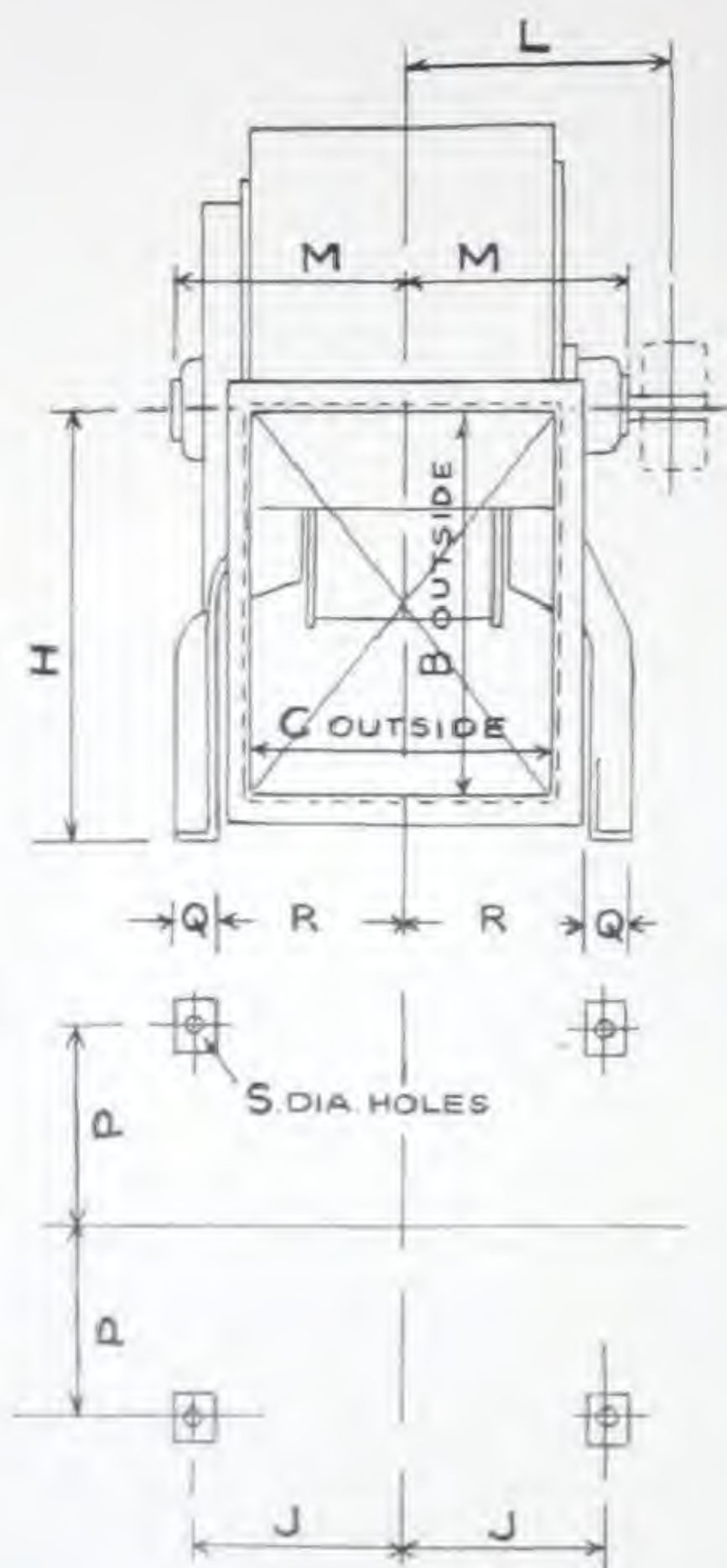
Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
160	3200	·640															342	104·8	345	108·8	353	116·4	362	124·0	371	131·6
170	2830	·500											287	85·0	291	86·8	295	92·9	304	102·0	314	107·8	323	116·0		

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		5½" RH		6" RH		6½" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
160	3200	·640	380	141·2	397	158·0	413	176·0	427	192·0	442	209·6	457	228·8	470	246·4	483	264·0	495	281·6	508	299·2
170	2830	·500	332	125·8	349	142·0	364	159·3	380	176·3	394	196·5	407	213·0	421	232·5	432	250·0	444	267·0	457	286·0

For dimension sheets see pages 76 to 90.

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE



ARRANGEMENT 1.

Standard Equipment supplied with Two Ring Oiling Bearings.

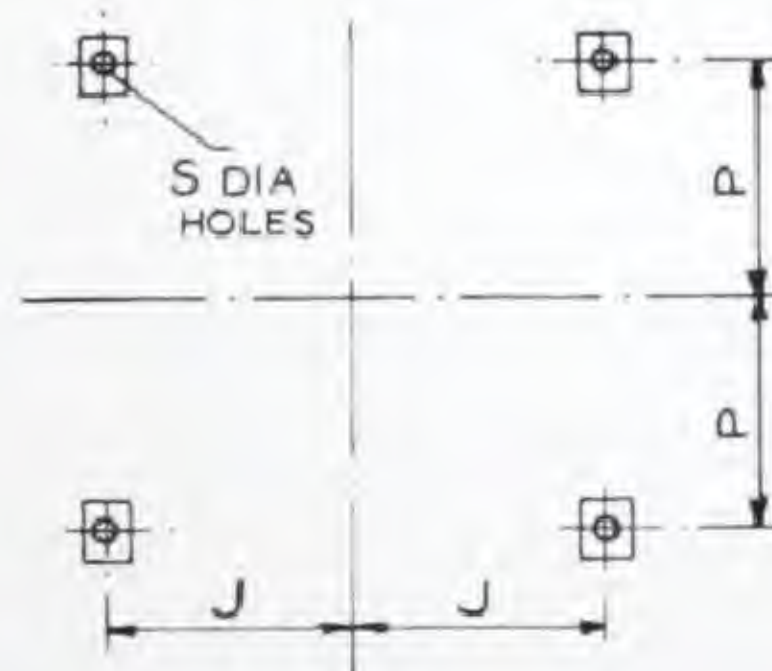
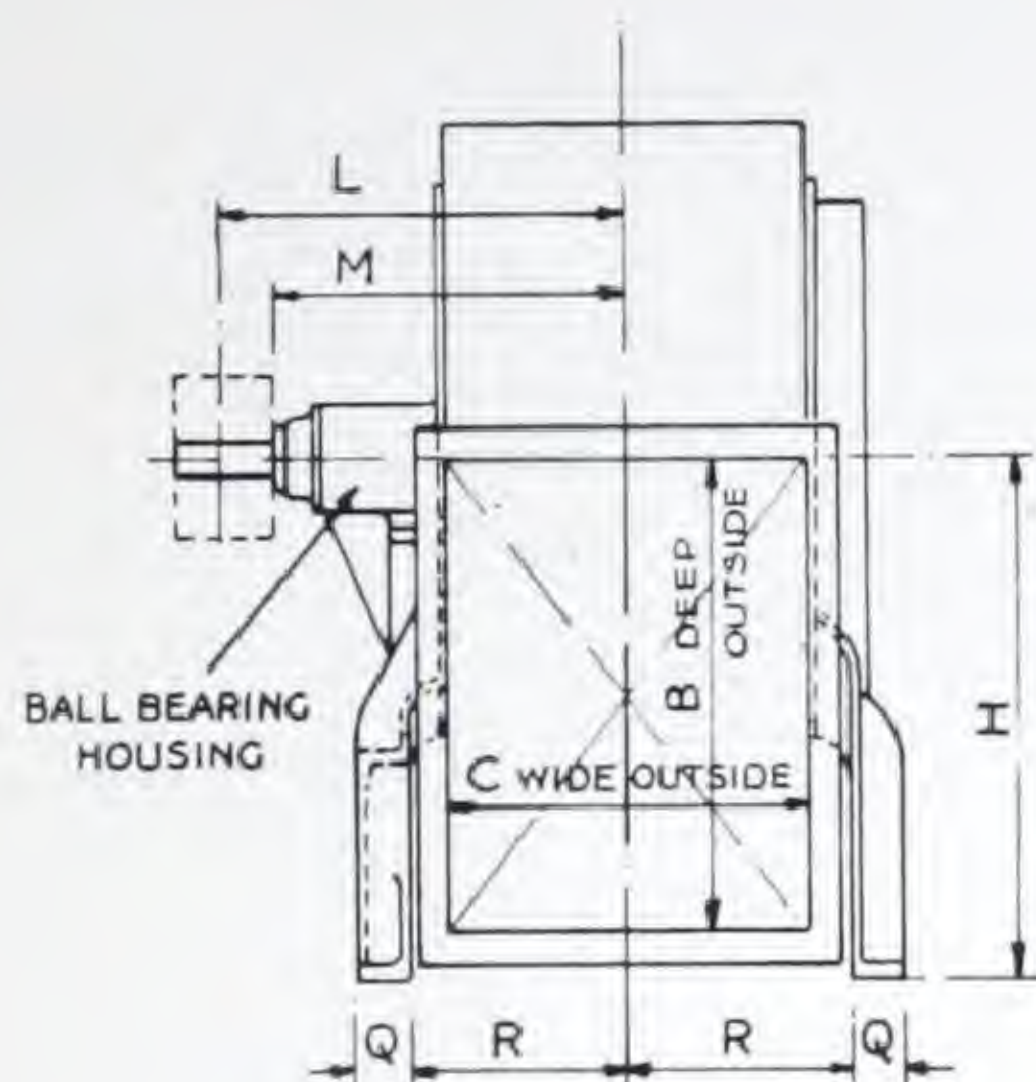
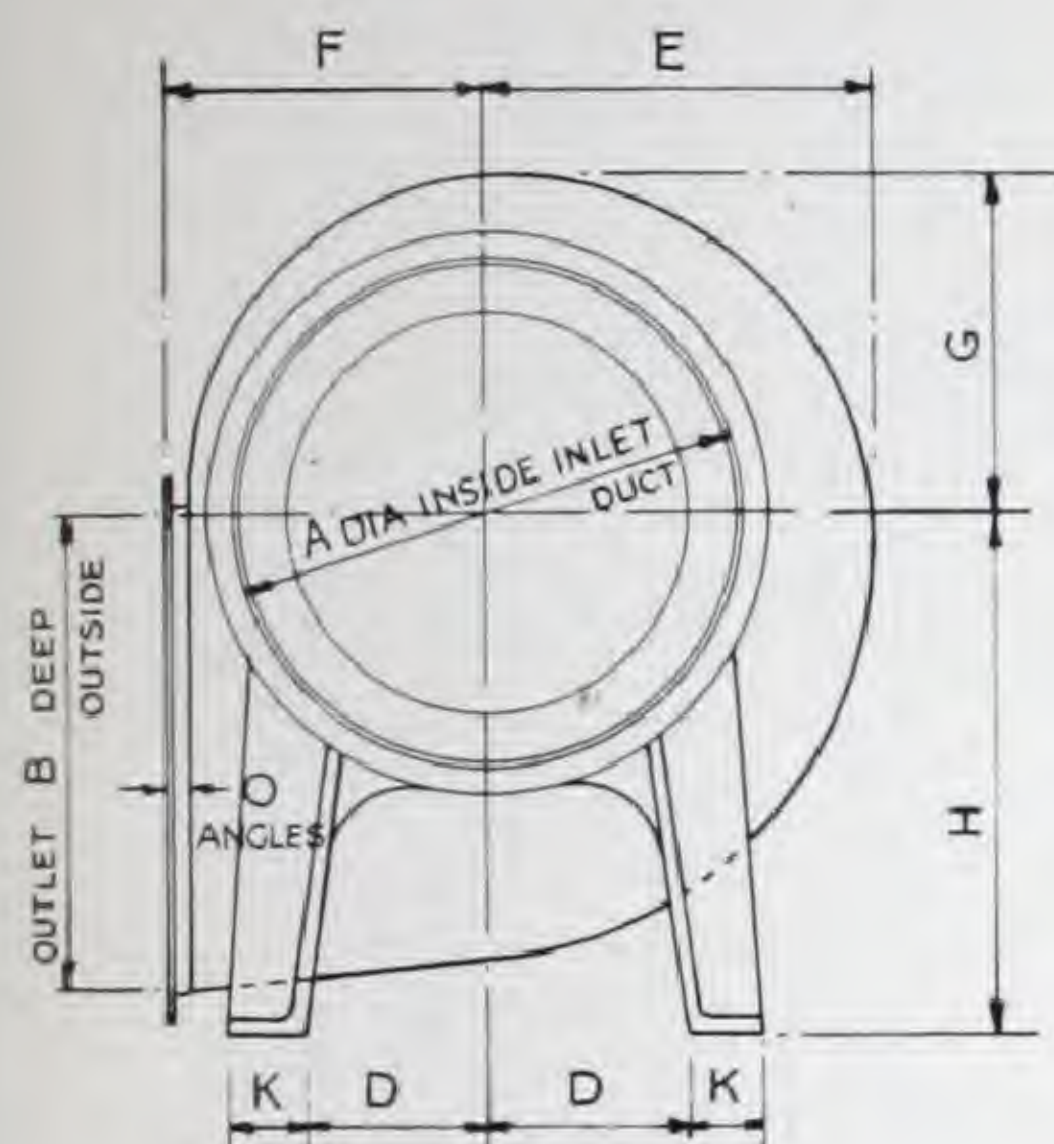
Ball Bearing Plummer Blocks can be fitted when required.

DIMENSION SHEET FOR CYCLONE S.S. AND H.S.C.B. CENTRIFUGAL FANS

Fan Size	DIMENSIONS IN INCHES																	Pulleys S.S. Fans		Pulleys H.S.C.B. Fans	
	A	B	C	D	E	F	G	H	I	K	L	M	O	P	Q	R	S	Dia.	Wide	Dia.	Wide
20	13 $\frac{1}{2}$	12 $\frac{1}{16}$	9 $\frac{1}{8}$	5	10 $\frac{1}{16}$	8 $\frac{1}{16}$	9	14 $\frac{1}{4}$	7 $\frac{1}{16}$	2 $\frac{1}{2}$	10 $\frac{1}{16}$	9 $\frac{1}{16}$	1 $\frac{1}{4}$	6 $\frac{3}{16}$	1 $\frac{1}{2}$	6 $\frac{7}{16}$	$\frac{1}{8}$	6	4	4	3
25	17	15 $\frac{1}{8}$	12 $\frac{1}{16}$	6	12 $\frac{1}{16}$	10 $\frac{1}{16}$	11 $\frac{1}{4}$	17 $\frac{1}{8}$	8 $\frac{1}{16}$	3	11 $\frac{1}{16}$	9 $\frac{1}{16}$	1 $\frac{1}{4}$	8	1 $\frac{1}{2}$	7 $\frac{1}{16}$	$\frac{1}{8}$	7	4	5	3
30	20 $\frac{1}{2}$	19	14 $\frac{1}{2}$	7	15 $\frac{1}{2}$	12 $\frac{1}{2}$	13 $\frac{1}{2}$	20 $\frac{1}{2}$	10	3 $\frac{1}{2}$	12 $\frac{1}{2}$	10 $\frac{1}{2}$	1 $\frac{1}{4}$	9 $\frac{1}{2}$	2	8 $\frac{1}{2}$	$\frac{1}{8}$	8	4	6	4
35	24	22 $\frac{1}{4}$	17 $\frac{1}{2}$	8	18 $\frac{1}{16}$	14 $\frac{1}{16}$	15 $\frac{1}{2}$	24	11 $\frac{1}{16}$	3 $\frac{1}{2}$	13 $\frac{1}{16}$	12 $\frac{1}{16}$	1 $\frac{1}{4}$	10 $\frac{1}{8}$	2	10 $\frac{1}{16}$	$\frac{1}{8}$	10	4	7	4
40	27 $\frac{1}{2}$	25 $\frac{1}{8}$	19 $\frac{1}{2}$	9	20 $\frac{1}{2}$	16 $\frac{1}{2}$	18	27 $\frac{1}{2}$	12 $\frac{1}{16}$	4	14 $\frac{1}{16}$	12 $\frac{1}{16}$	1 $\frac{1}{4}$	11 $\frac{1}{2}$	2	11 $\frac{1}{16}$	$\frac{1}{8}$	14	5	10	5
45	30 $\frac{1}{2}$	28 $\frac{1}{2}$	22 $\frac{1}{16}$	10	23 $\frac{1}{2}$	18 $\frac{1}{2}$	20 $\frac{1}{2}$	31	14 $\frac{1}{2}$	4	15 $\frac{1}{16}$	13 $\frac{1}{16}$	1 $\frac{1}{4}$	12 $\frac{1}{2}$	2 $\frac{1}{2}$	12 $\frac{1}{2}$	$\frac{1}{8}$	16	5	11	5
50	34	31 $\frac{1}{2}$	24 $\frac{1}{2}$	11	25 $\frac{1}{16}$	20 $\frac{1}{16}$	22 $\frac{1}{2}$	34 $\frac{1}{2}$	15 $\frac{1}{2}$	4	16 $\frac{1}{2}$	14 $\frac{1}{2}$	1 $\frac{1}{4}$	14	2 $\frac{1}{2}$	14	$\frac{1}{8}$	18	5	12	5
55	37 $\frac{1}{2}$	34 $\frac{1}{2}$	27	12 $\frac{1}{2}$	28 $\frac{1}{2}$	22 $\frac{1}{2}$	24 $\frac{1}{2}$	37 $\frac{1}{2}$	16 $\frac{1}{2}$	4	19	16 $\frac{1}{2}$	1 $\frac{1}{4}$	15 $\frac{1}{2}$	2 $\frac{1}{2}$	15 $\frac{1}{2}$	$\frac{1}{8}$	20	6	14	6
60	41	38	29 $\frac{1}{2}$	13	31	24 $\frac{1}{2}$	27	40 $\frac{1}{2}$	18 $\frac{1}{16}$	4 $\frac{1}{2}$	19 $\frac{1}{16}$	17 $\frac{1}{16}$	1 $\frac{1}{4}$	16 $\frac{1}{2}$	2 $\frac{1}{2}$	16 $\frac{1}{16}$	$\frac{1}{8}$	22	6	16	6

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE



ARRANGEMENT 2.

Standard Equipment supplied with Double Ball Bearings fitted in Cast Iron Housing Bracket.

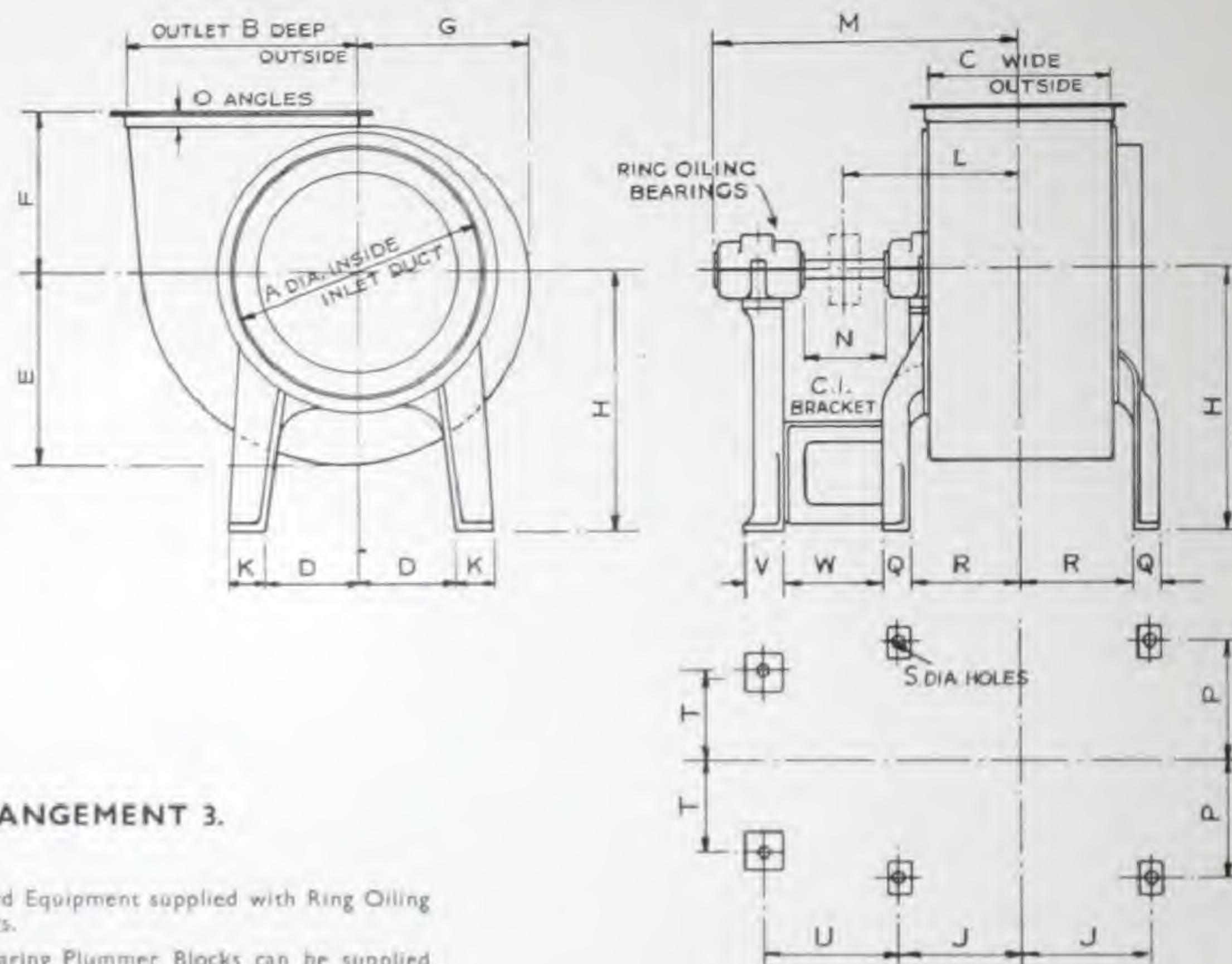
DIMENSION SHEET FOR CYCLONE S.S. AND H.S.C.B. CENTRIFUGAL FANS

DIMENSIONS IN INCHES

Fan Size	A	B	C	D	E	F	G	H	J	K	L	M	O	P	Q	R	S	Pulleys S.S. Fans		Pulleys H.S.C.B. Fans	
																		Dia.	Wide	Dia.	Wide
20	13 $\frac{1}{2}$	12 $\frac{1}{8}$	9 $\frac{7}{8}$	5	10 $\frac{5}{16}$	8 $\frac{1}{8}$	9	14 $\frac{1}{2}$	7 $\frac{3}{16}$	2 $\frac{1}{2}$	13 $\frac{1}{2}$	12 $\frac{3}{8}$	1 $\frac{1}{2}$	6 $\frac{1}{8}$	1 $\frac{1}{2}$	6 $\frac{7}{16}$	$\frac{1}{2}$	6	4	4	3
25	17	15 $\frac{1}{2}$	12 $\frac{5}{16}$	6	12 $\frac{1}{8}$	10 $\frac{1}{8}$	11 $\frac{1}{2}$	17 $\frac{1}{8}$	8 $\frac{1}{2}$	3	14 $\frac{1}{4}$	13 $\frac{3}{16}$	1 $\frac{1}{2}$	8	1 $\frac{1}{2}$	7 $\frac{3}{16}$	$\frac{1}{2}$	7	4	5	3
30	20 $\frac{1}{2}$	19	14 $\frac{1}{2}$	7	15 $\frac{1}{2}$	12 $\frac{3}{8}$	13 $\frac{1}{2}$	20 $\frac{1}{2}$	10	3 $\frac{1}{2}$	15 $\frac{1}{8}$	14 $\frac{1}{16}$	1 $\frac{1}{2}$	9 $\frac{1}{8}$	2	8 $\frac{1}{8}$	$\frac{1}{2}$	8	4	6	4
35	24	22 $\frac{1}{2}$	17 $\frac{1}{2}$	8	18 $\frac{1}{16}$	14 $\frac{1}{16}$	15 $\frac{1}{2}$	24	11 $\frac{3}{16}$	3 $\frac{3}{4}$	17 $\frac{1}{2}$	15 $\frac{3}{8}$	1 $\frac{1}{2}$	10 $\frac{1}{8}$	2	10 $\frac{1}{10}$	$\frac{1}{2}$	10	4	7	4
40	27 $\frac{1}{2}$	25 $\frac{3}{8}$	19 $\frac{3}{8}$	9	20 $\frac{1}{8}$	16 $\frac{1}{8}$	18	27 $\frac{1}{2}$	12 $\frac{7}{16}$	4	18 $\frac{1}{2}$	16 $\frac{1}{2}$	1 $\frac{1}{2}$	11 $\frac{1}{2}$	2	11 $\frac{5}{16}$	$\frac{1}{2}$	14	5	10	5
45	30 $\frac{3}{4}$	28 $\frac{1}{2}$	22 $\frac{1}{8}$	10	23 $\frac{1}{2}$	18 $\frac{1}{2}$	20 $\frac{1}{2}$	31	14 $\frac{1}{2}$	4	19 $\frac{1}{2}$	17 $\frac{1}{8}$	1 $\frac{1}{2}$	12 $\frac{1}{2}$	2 $\frac{1}{2}$	12 $\frac{1}{2}$	$\frac{1}{2}$	16	5	11	5
50	34	31 $\frac{3}{4}$	24 $\frac{1}{2}$	11	25 $\frac{1}{8}$	20 $\frac{1}{8}$	22 $\frac{1}{2}$	34 $\frac{1}{2}$	15 $\frac{1}{2}$	4	20 $\frac{3}{16}$	17 $\frac{1}{16}$	1 $\frac{1}{2}$	14	2 $\frac{1}{2}$	14	$\frac{1}{2}$	18	5	12	5

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE



ARRANGEMENT 3.

Standard Equipment supplied with Ring Oiling Bearings.

Ball Bearing Plummer Blocks can be supplied when required.

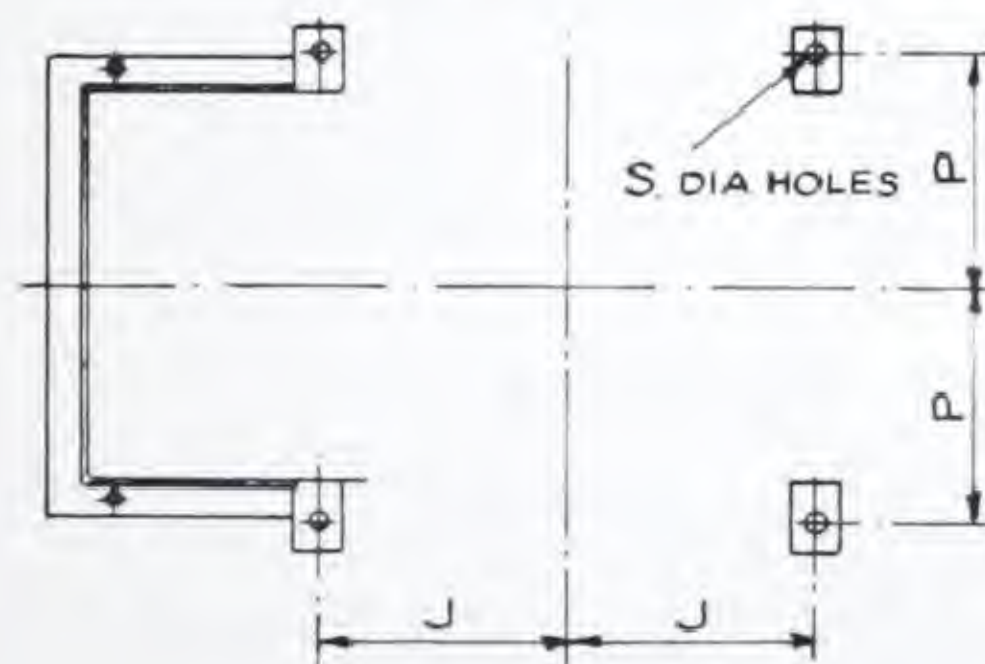
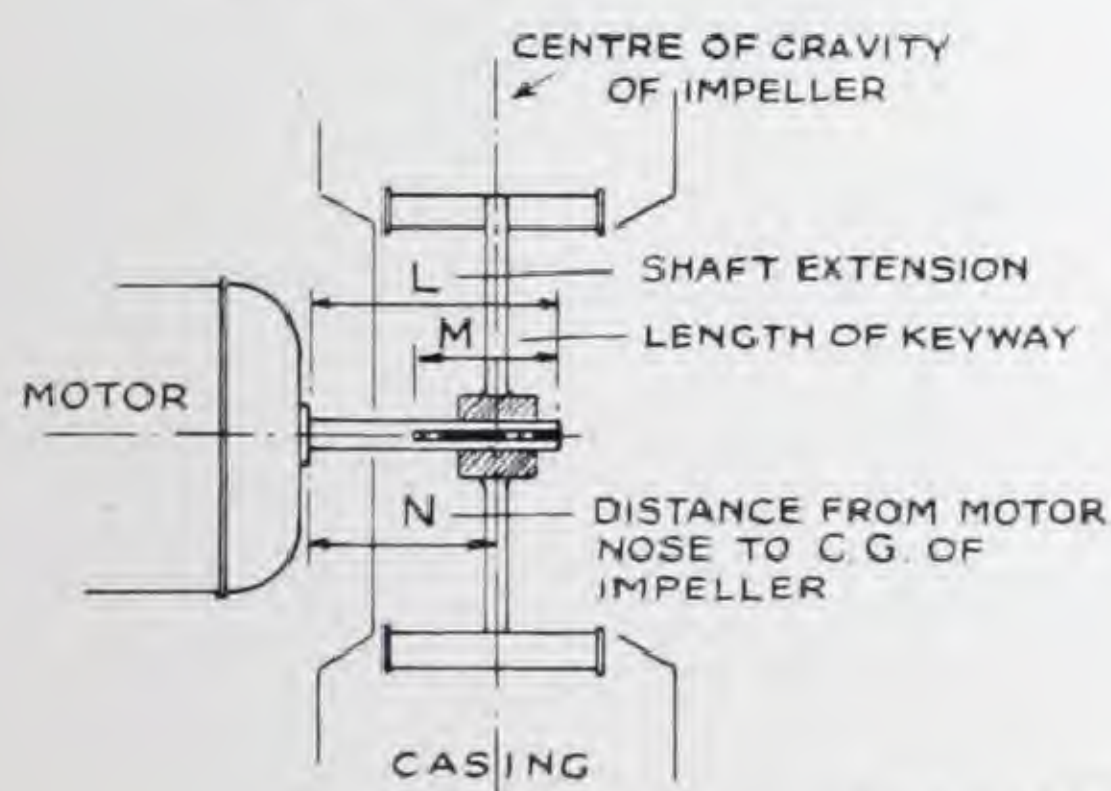
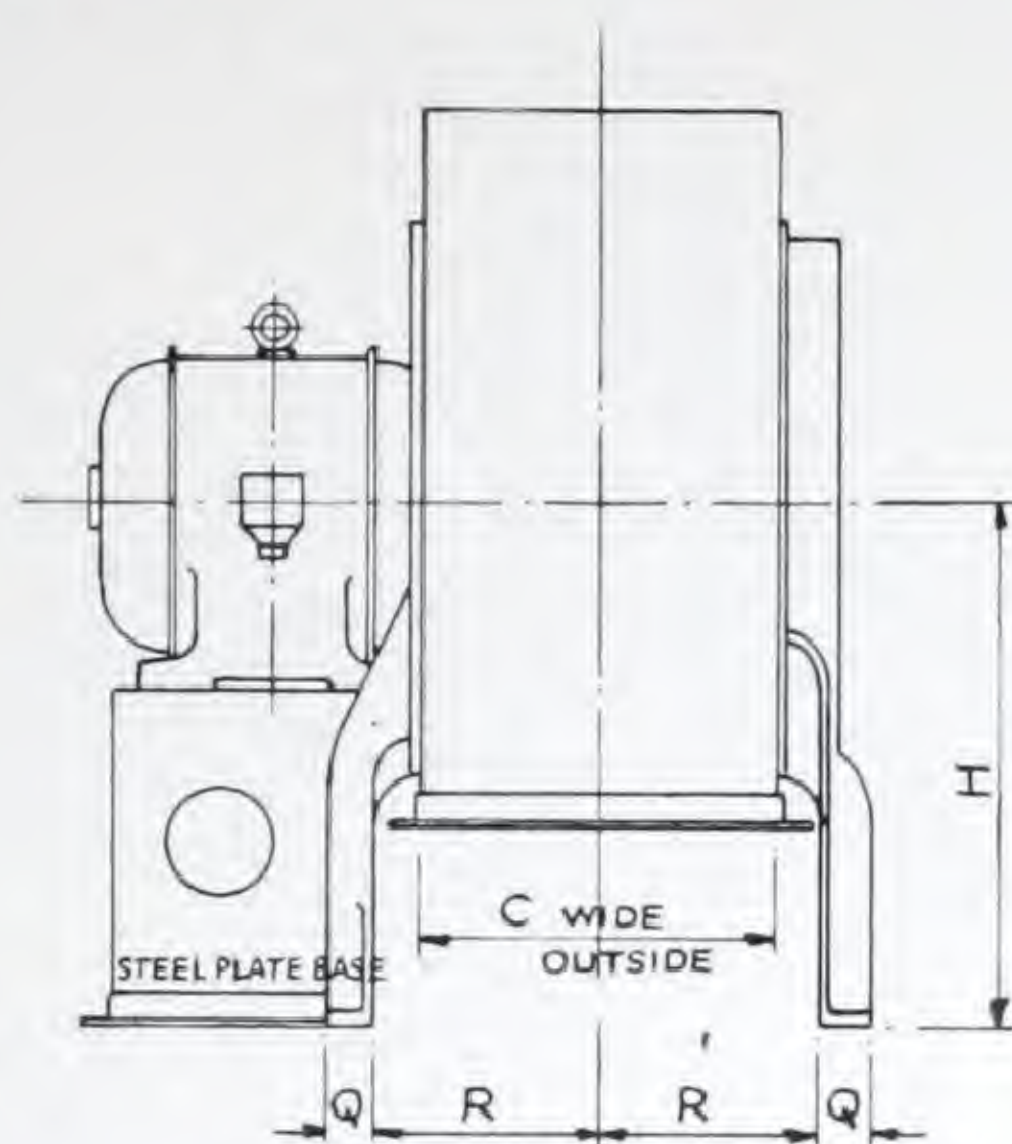
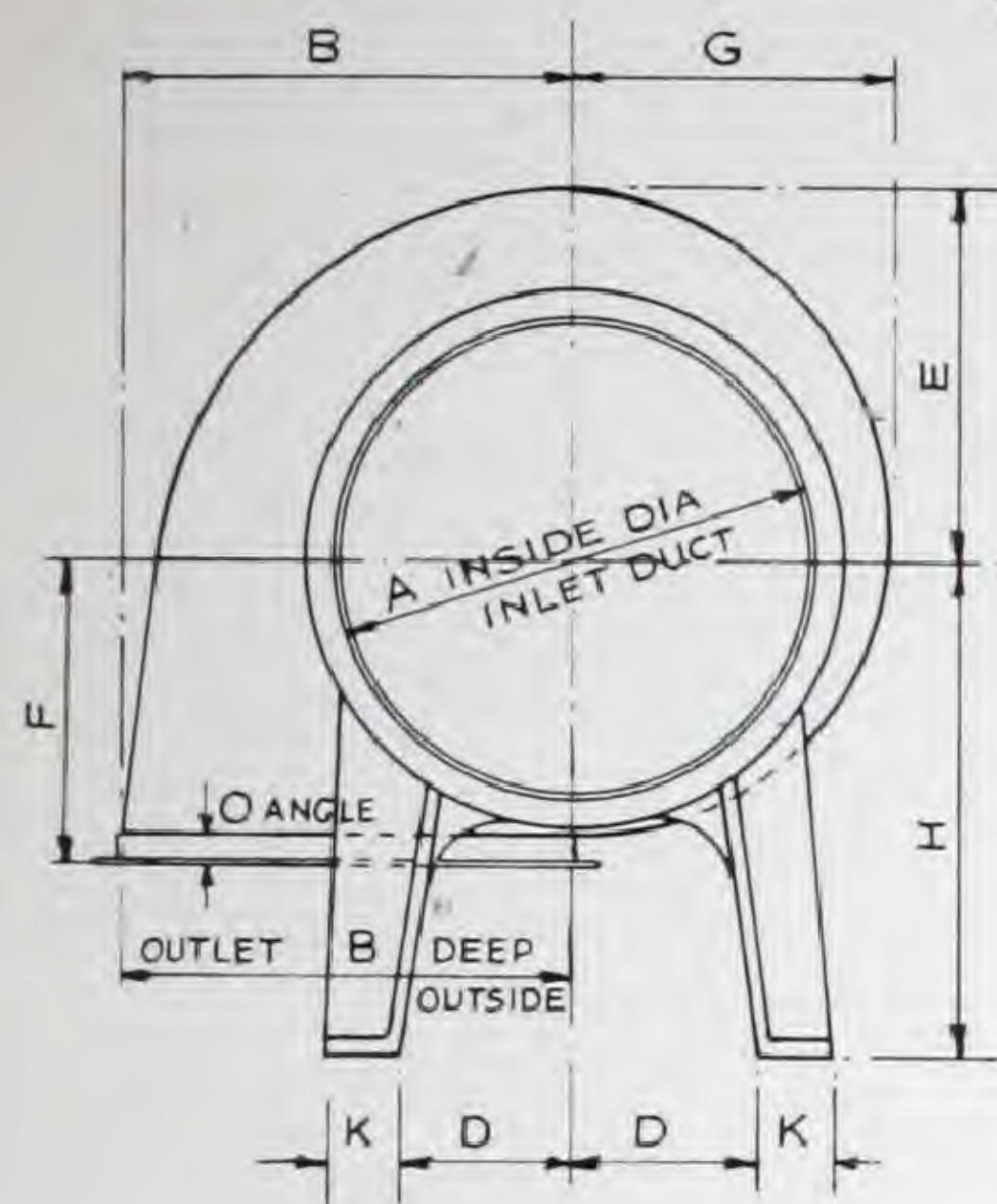
DIMENSION SHEET FOR CYCLONE S.S. AND H.S.C.B. CENTRIFUGAL FANS

DIMENSIONS IN INCHES

Fan Size	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	Pulleys S.S. Fans		Pulleys H.S.C.B. Fans	
																							Dia.	Wide	Dia.	Wide
20	13	12	9	5	10	8	9	14	7	2	10	18	2	1	6	1	6	1	4	7	3	5	6	4	4	3
25	17	15	12	6	12	10	11	17	8	3	11	21	3	1	8	1	7	1	5	8	3	6	7	4	5	3
30	20	19	14	7	15	12	13	20	10	3	13	24	6	1	9	2	8	1	7	10	3	7	8	4	6	4
35	24	22	17	8	18	14	15	24	11	3	15	26	6	1	10	2	10	1	8	11	3	8	10	4	7	4
40	27	25	19	9	20	16	18	27	12	4	17	29	8	1	11	2	11	1	9	12	3	10	14	5	10	5
45	30	28	22	10	23	18	20	31	14	4	18	32	10	1	12	2	12	1	11	13	3	11	16	5	11	5
50	34	31	24	11	25	20	22	34	15	4	20	34	11	1	14	2	14	1	12	15	3	12	18	5	12	5
55	37	34	27	12	28	22	24	37	16	4	22	38	12	1	15	2	15	1	14	17	4	13	20	6	14	6
60	41	38	29	13	31	24	27	40	18	4	24	41	14	1	16	2	16	1	15	18	4	15	22	6	16	6

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE



ARRANGEMENT 4.

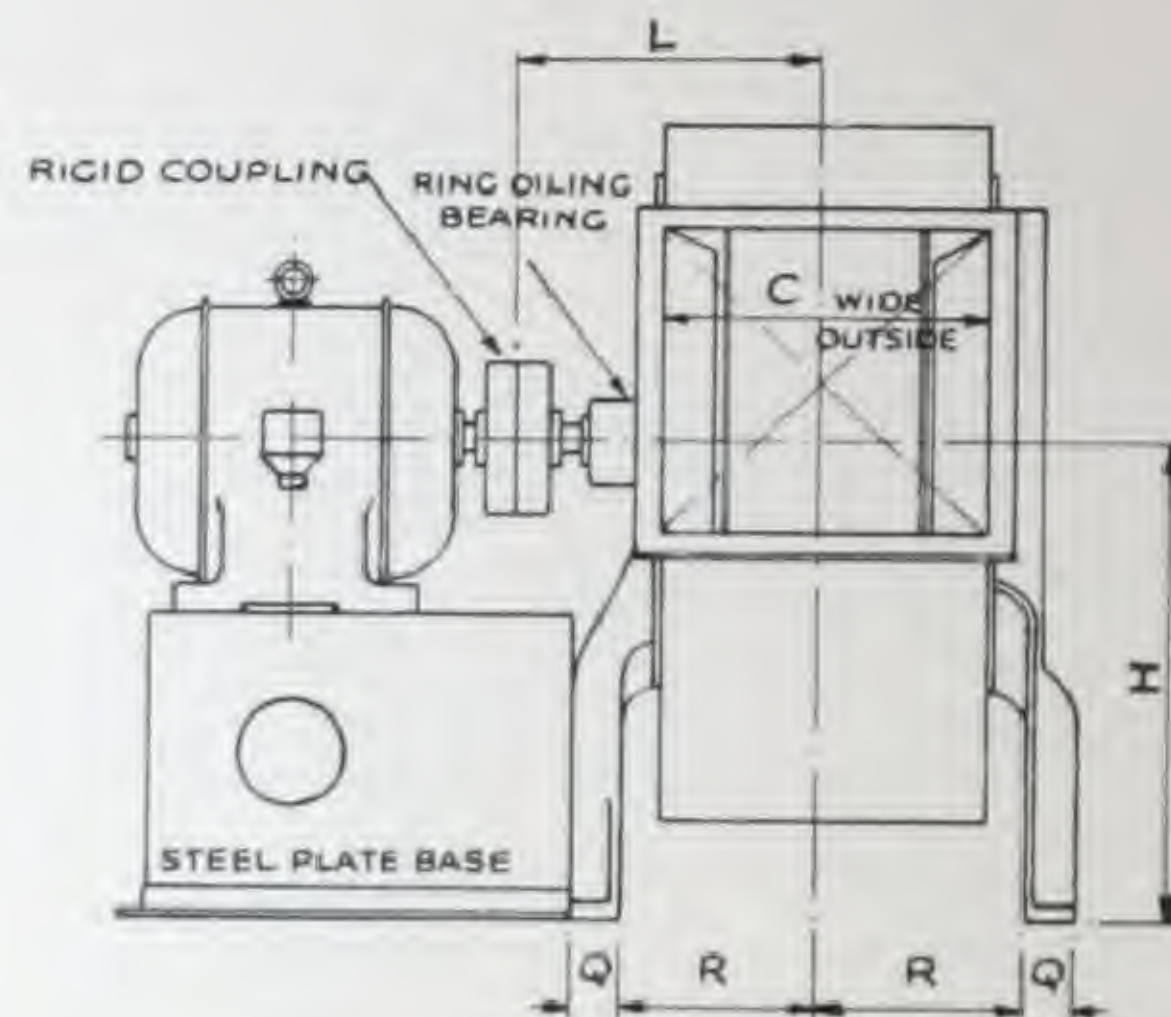
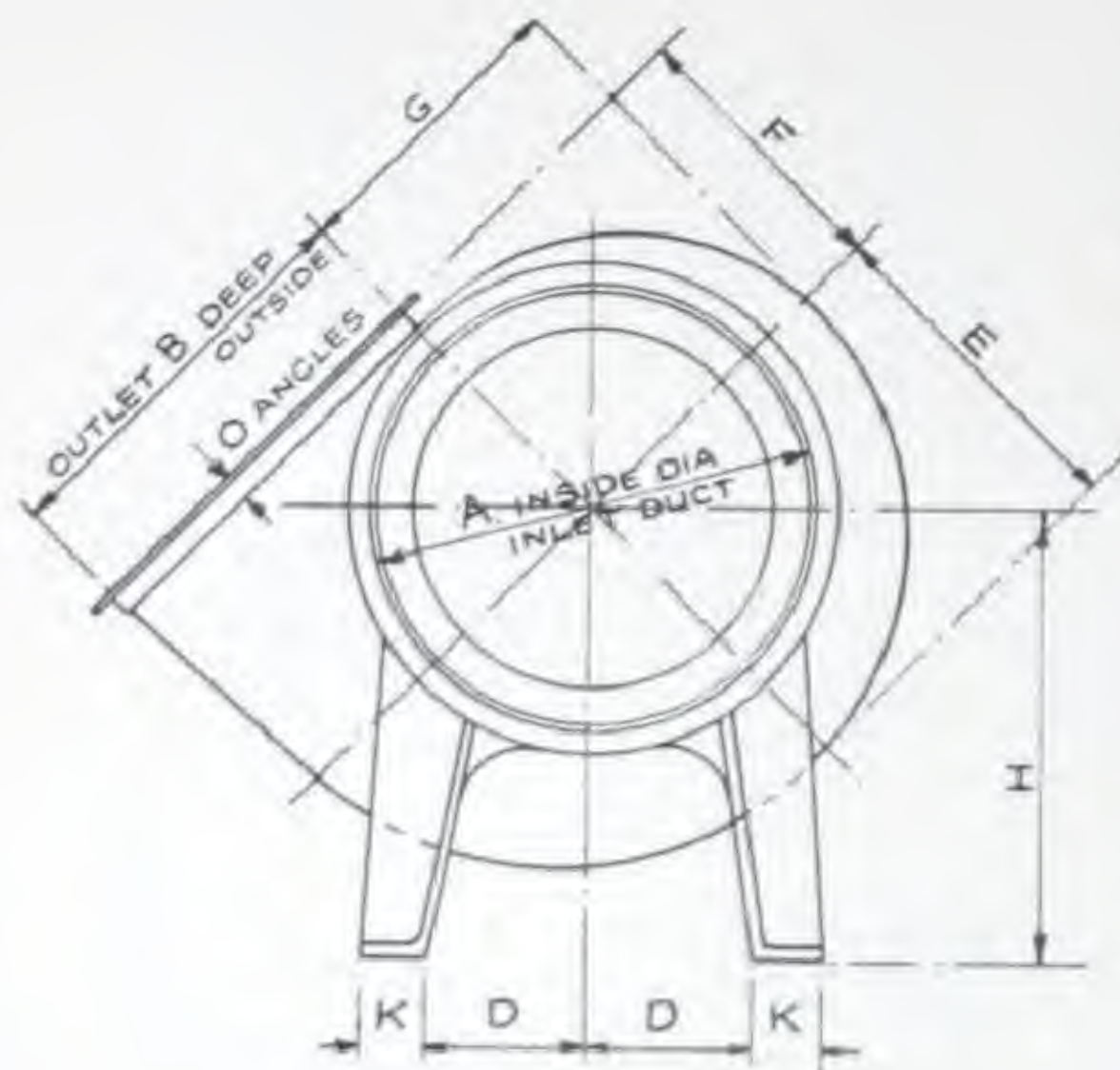
Direct Coupled with Impeller mounted on Motor Shaft.

DIMENSION SHEET FOR CYCLONE S.S. AND H.S.C.B. CENTRIFUGAL FANS

DIMENSIONS IN INCHES

Fan Size																			Impeller	Weights Lbs.
	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S		
20	13 $\frac{1}{2}$	12 $\frac{1}{8}$	9 $\frac{1}{8}$	5	10 $\frac{5}{16}$	8 $\frac{1}{16}$	9	14 $\frac{1}{4}$	7 $\frac{5}{16}$	2 $\frac{1}{2}$	7 $\frac{1}{2}$	5	5 $\frac{3}{16}$	1 $\frac{1}{2}$	6 $\frac{13}{16}$	1 $\frac{1}{2}$	6 $\frac{7}{16}$	$\frac{1}{2}$	15	24
25	17	15 $\frac{1}{8}$	12 $\frac{5}{16}$	6	12 $\frac{15}{16}$	10 $\frac{13}{16}$	11 $\frac{1}{2}$	17 $\frac{5}{8}$	8 $\frac{17}{16}$	3	8 $\frac{1}{2}$	5 $\frac{1}{2}$	6 $\frac{3}{8}$	1 $\frac{1}{2}$	8	1 $\frac{1}{2}$	7 $\frac{21}{32}$	$\frac{1}{2}$	23	31
30	20 $\frac{1}{2}$	19	14 $\frac{3}{4}$	7	15 $\frac{1}{2}$	12 $\frac{1}{2}$	13 $\frac{1}{2}$	20 $\frac{3}{4}$	10	3 $\frac{1}{2}$	10 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{3}{8}$	1 $\frac{1}{2}$	9 $\frac{3}{8}$	2	8 $\frac{7}{8}$	$\frac{1}{2}$	31	48
35	24	22 $\frac{1}{8}$	17 $\frac{1}{8}$	8	18 $\frac{1}{16}$	14 $\frac{11}{16}$	15 $\frac{3}{4}$	24	11 $\frac{3}{16}$	3 $\frac{3}{4}$	12	8	8 $\frac{1}{2}$	1 $\frac{1}{2}$	10 $\frac{3}{8}$	2	10 $\frac{1}{16}$	$\frac{1}{2}$	50	69
40	27 $\frac{1}{2}$	25 $\frac{3}{8}$	19 $\frac{3}{8}$	9	20 $\frac{5}{8}$	16 $\frac{5}{8}$	18	27 $\frac{1}{4}$	12 $\frac{7}{16}$	4	13 $\frac{1}{2}$	9	10	1 $\frac{1}{2}$	11 $\frac{1}{2}$	2	11 $\frac{5}{16}$	$\frac{5}{8}$	69	82
45	30 $\frac{3}{4}$	28 $\frac{1}{2}$	22 $\frac{1}{16}$	10	23 $\frac{1}{4}$	18 $\frac{3}{4}$	20 $\frac{1}{4}$	31	14 $\frac{1}{4}$	4	15	9 $\frac{1}{2}$	11 $\frac{1}{4}$	1 $\frac{1}{2}$	12 $\frac{1}{8}$	2 $\frac{1}{2}$	12 $\frac{1}{4}$	$\frac{3}{4}$	92	110
50	34	31 $\frac{3}{4}$	24 $\frac{1}{2}$	11	25 $\frac{13}{16}$	20 $\frac{11}{16}$	22 $\frac{1}{2}$	34 $\frac{1}{4}$	15 $\frac{1}{2}$	4	16 $\frac{1}{4}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	1 $\frac{1}{2}$	14	2 $\frac{1}{2}$	14	$\frac{5}{8}$	121	131
55	37 $\frac{1}{2}$	34 $\frac{7}{8}$	27	12 $\frac{1}{4}$	28 $\frac{3}{8}$	22 $\frac{3}{8}$	24 $\frac{1}{2}$	37 $\frac{1}{2}$	16 $\frac{3}{4}$	4	18 $\frac{1}{4}$	12	13 $\frac{3}{4}$	1 $\frac{1}{2}$	15 $\frac{1}{4}$	2 $\frac{1}{2}$	15 $\frac{1}{8}$	$\frac{5}{8}$	164	152
60	41	38	29 $\frac{3}{8}$	13	31	24 $\frac{3}{4}$	27	40 $\frac{1}{4}$	18 $\frac{3}{16}$	4 $\frac{1}{2}$	19 $\frac{1}{2}$	13	15	1 $\frac{1}{2}$	16 $\frac{3}{8}$	2 $\frac{1}{2}$	16 $\frac{11}{16}$	$\frac{3}{4}$	224	194

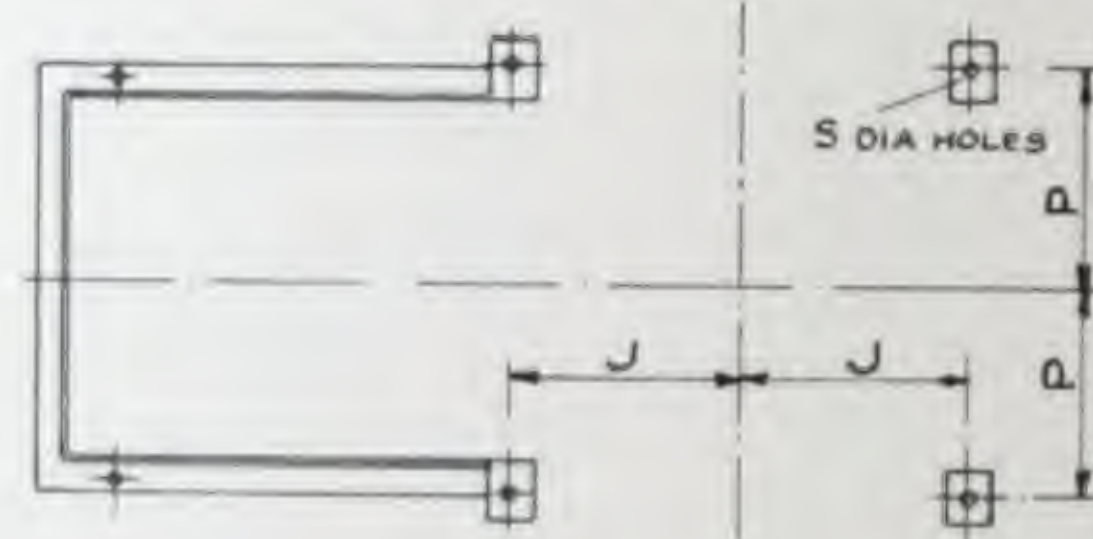
CYCLONE



ARRANGEMENT 5.

Direct Coupled with Rigid Coupling and One Ring Oiling Bearing.

Ball Bearing Plummer Block can be fitted in place of the Ring Oiling Bearing.



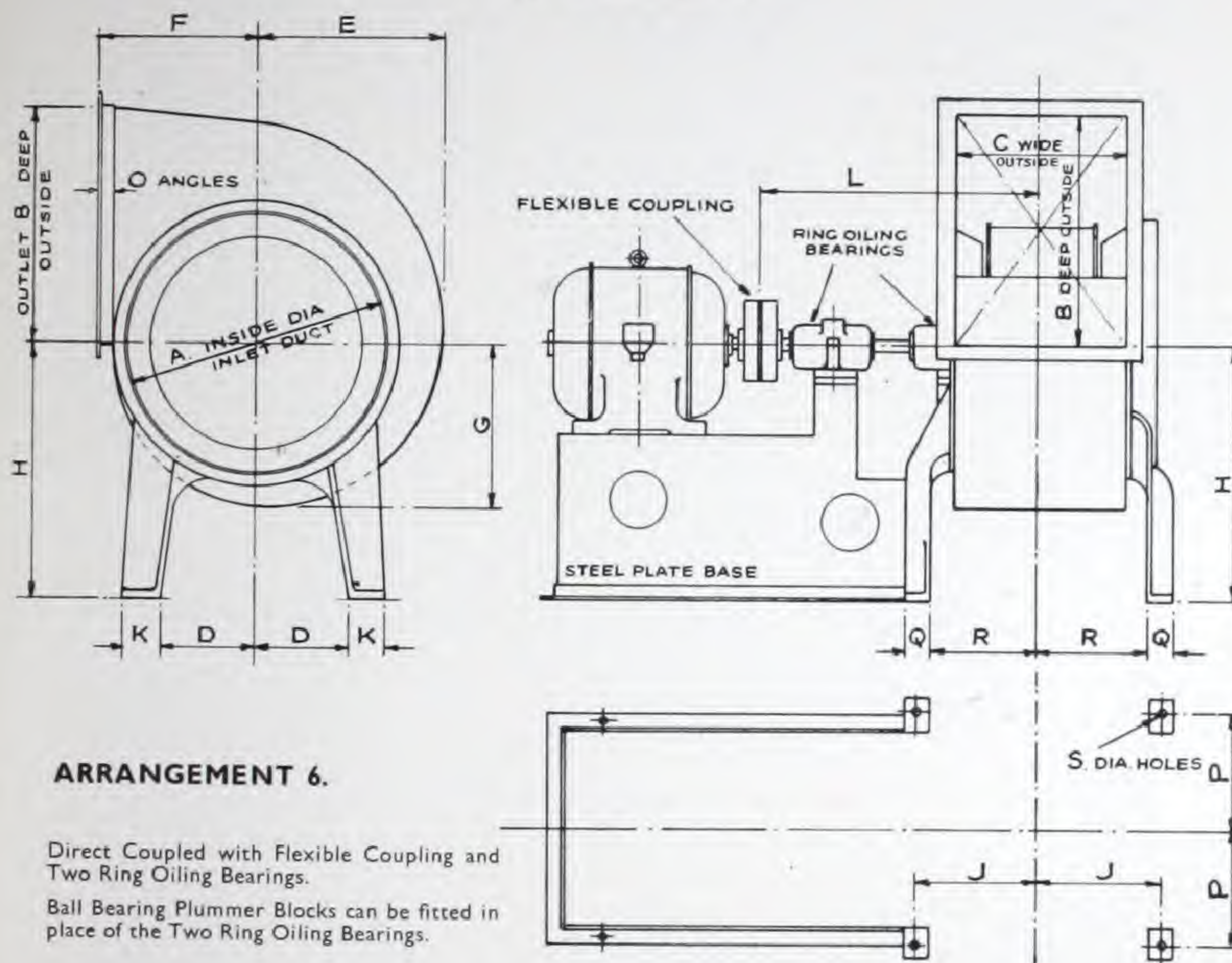
DIMENSION SHEET FOR CYCLONE S.S. AND H.S.C.B. CENTRIFUGAL FANS

DIMENSIONS IN INCHES

Fan Size	A	B	C	D	E	F	G	H	J	K	L	O	P	Q	R	S
20	13 1/2	12 1/2	9 1/2	5	10 1/2	8 1/2	9	14 1/2	7 1/2	2 1/2	12 1/2	1 1/2	6 1/2	1 1/2	6 1/2	1 1/2
25	17	15 1/2	12 1/2	6	12 1/2	10 1/2	11 1/2	17 1/2	8 1/2	3	13 1/2	1 1/2	8	1 1/2	7 1/2	1 1/2
30	20 1/2	19	14 1/2	7	15 1/2	12 1/2	13 1/2	20 1/2	10	3 1/2	14 1/2	1 1/2	9 1/2	2	8 1/2	1 1/2
35	24	22 1/2	17 1/2	8	18 1/2	14 1/2	15 1/2	24	11 1/2	3 1/2	15 1/2	1 1/2	10 1/2	2	10 1/2	1 1/2
40	27 1/2	25 1/2	19 1/2	9	20 1/2	16 1/2	18	27 1/2	12 1/2	4	16 1/2	1 1/2	11 1/2	2	11 1/2	1 1/2
45	30 1/2	28 1/2	22 1/2	10	23 1/2	18 1/2	20 1/2	31	14 1/2	4	17 1/2	1 1/2	12 1/2	2 1/2	12 1/2	1 1/2
50	34	31 1/2	24 1/2	11	25 1/2	20 1/2	22 1/2	34 1/2	15 1/2	4	19	1 1/2	14	2 1/2	14	1 1/2
55	37 1/2	34 1/2	27 1/2	12 1/2	28 1/2	22 1/2	24 1/2	37 1/2	16 1/2	4	21 1/2	1 1/2	15 1/2	2 1/2	15 1/2	1 1/2
60	41	38	29 1/2	13	31	24 1/2	27	40 1/2	18 1/2	4 1/2	22 1/2	1 1/2	16 1/2	2 1/2	16 1/2	1 1/2

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

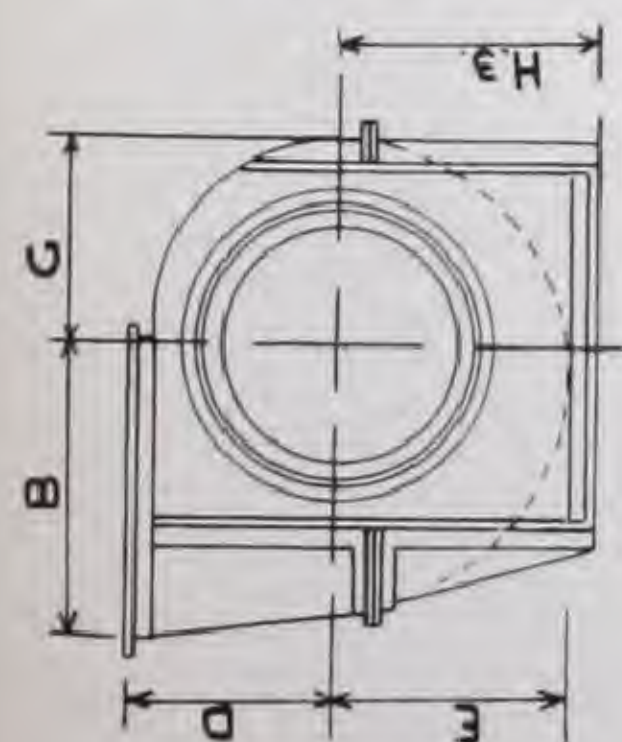


DIMENSION SHEET FOR CYCLONE S.S. AND H.S.C.B. CENTRIFUGAL FANS

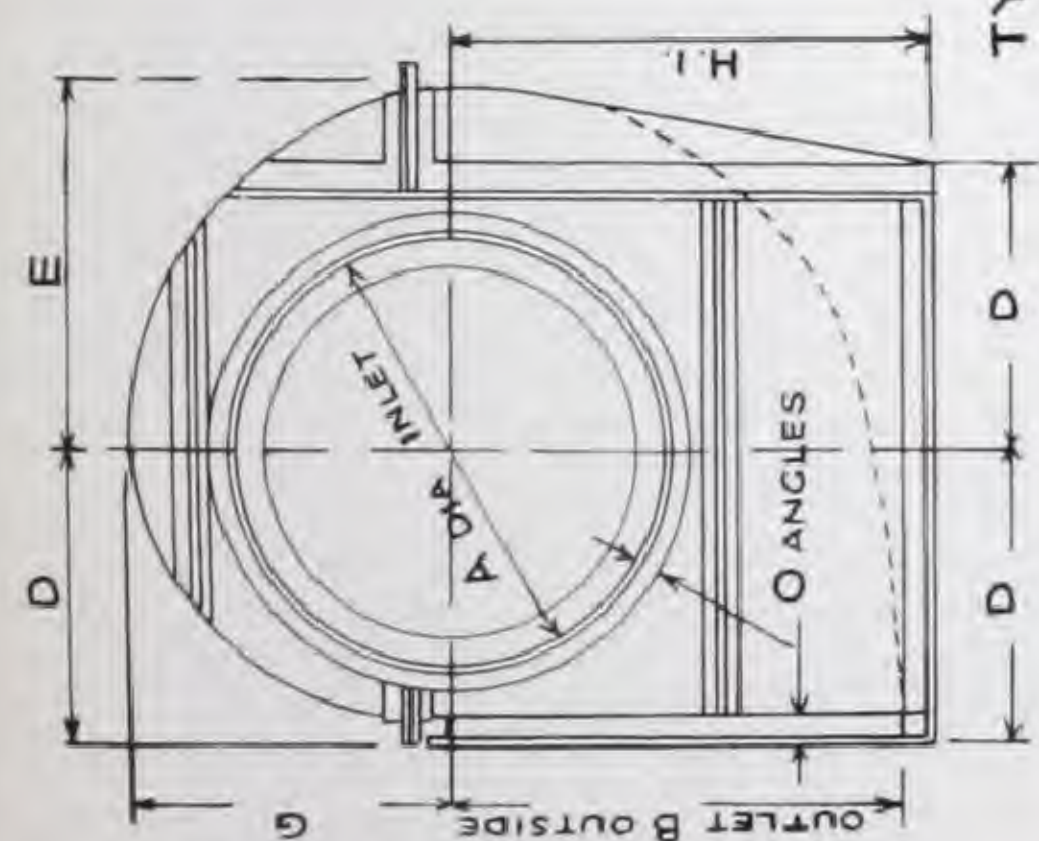
DIMENSIONS IN INCHES

Fan Size	A	B	C	D	E	F	G	H	J	K	L	O	P	Q	R	S
20	13 $\frac{1}{4}$	12 $\frac{11}{16}$	9 $\frac{7}{8}$	5	10 $\frac{5}{16}$	8 $\frac{13}{16}$	9	14 $\frac{1}{4}$	7 $\frac{5}{16}$	2 $\frac{3}{4}$	21 $\frac{1}{2}$	1 $\frac{1}{4}$	6 $\frac{13}{16}$	1 $\frac{1}{2}$	6 $\frac{7}{16}$	$\frac{1}{2}$
25	17	15 $\frac{7}{8}$	12 $\frac{5}{16}$	6	12 $\frac{13}{16}$	10 $\frac{13}{16}$	11 $\frac{1}{4}$	17 $\frac{1}{8}$	8 $\frac{17}{32}$	3	22 $\frac{1}{2}$	1 $\frac{1}{2}$	8	1 $\frac{1}{2}$	7 $\frac{23}{32}$	$\frac{1}{2}$
30	20 $\frac{1}{2}$	19	14 $\frac{3}{4}$	7	15 $\frac{1}{2}$	12 $\frac{3}{4}$	13 $\frac{1}{2}$	20 $\frac{1}{4}$	10	3 $\frac{1}{2}$	23 $\frac{5}{8}$	1 $\frac{1}{4}$	9 $\frac{3}{8}$	2	8 $\frac{7}{8}$	$\frac{1}{2}$
35	24	22 $\frac{1}{8}$	17 $\frac{1}{4}$	8	18 $\frac{1}{16}$	14 $\frac{11}{16}$	15 $\frac{1}{2}$	24	11 $\frac{3}{16}$	3 $\frac{1}{2}$	26 $\frac{1}{2}$	1 $\frac{1}{4}$	10 $\frac{5}{8}$	2	10 $\frac{1}{16}$	$\frac{1}{2}$
40	27 $\frac{1}{2}$	25 $\frac{3}{8}$	19 $\frac{5}{8}$	9	20 $\frac{5}{8}$	16 $\frac{5}{8}$	18	27 $\frac{1}{4}$	12 $\frac{7}{16}$	4	27 $\frac{3}{4}$	1 $\frac{1}{2}$	11 $\frac{3}{4}$	2	11 $\frac{5}{16}$	$\frac{5}{8}$
45	30 $\frac{3}{4}$	28 $\frac{1}{2}$	22 $\frac{1}{10}$	10	23 $\frac{1}{4}$	18 $\frac{3}{4}$	20 $\frac{1}{4}$	31	14 $\frac{1}{4}$	4	28 $\frac{7}{8}$	1 $\frac{1}{2}$	12 $\frac{7}{8}$	2 $\frac{1}{2}$	12 $\frac{3}{4}$	$\frac{5}{8}$
50	34	31 $\frac{3}{4}$	24 $\frac{1}{2}$	11	25 $\frac{17}{16}$	20 $\frac{11}{16}$	22 $\frac{1}{2}$	34 $\frac{1}{4}$	15 $\frac{1}{2}$	4	30 $\frac{1}{4}$	1 $\frac{1}{2}$	14	2 $\frac{1}{2}$	14	$\frac{3}{4}$
55	37 $\frac{1}{2}$	34 $\frac{7}{8}$	27	12 $\frac{1}{4}$	28 $\frac{3}{8}$	22 $\frac{3}{4}$	24 $\frac{3}{4}$	37 $\frac{1}{2}$	16 $\frac{3}{4}$	4	35	1 $\frac{1}{2}$	15 $\frac{1}{2}$	2 $\frac{1}{2}$	15 $\frac{1}{4}$	$\frac{3}{4}$
60	41	38	29 $\frac{3}{8}$	13	31	24 $\frac{3}{4}$	27	40 $\frac{3}{4}$	18 $\frac{3}{16}$	4 $\frac{1}{2}$	35 $\frac{7}{8}$	1 $\frac{3}{4}$	16 $\frac{3}{4}$	2 $\frac{1}{2}$	16 $\frac{11}{16}$	$\frac{3}{4}$

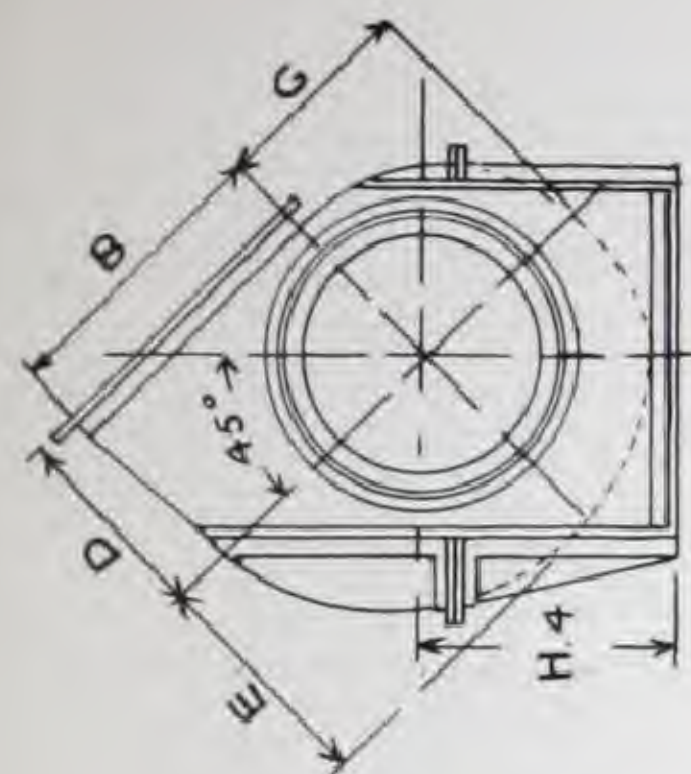
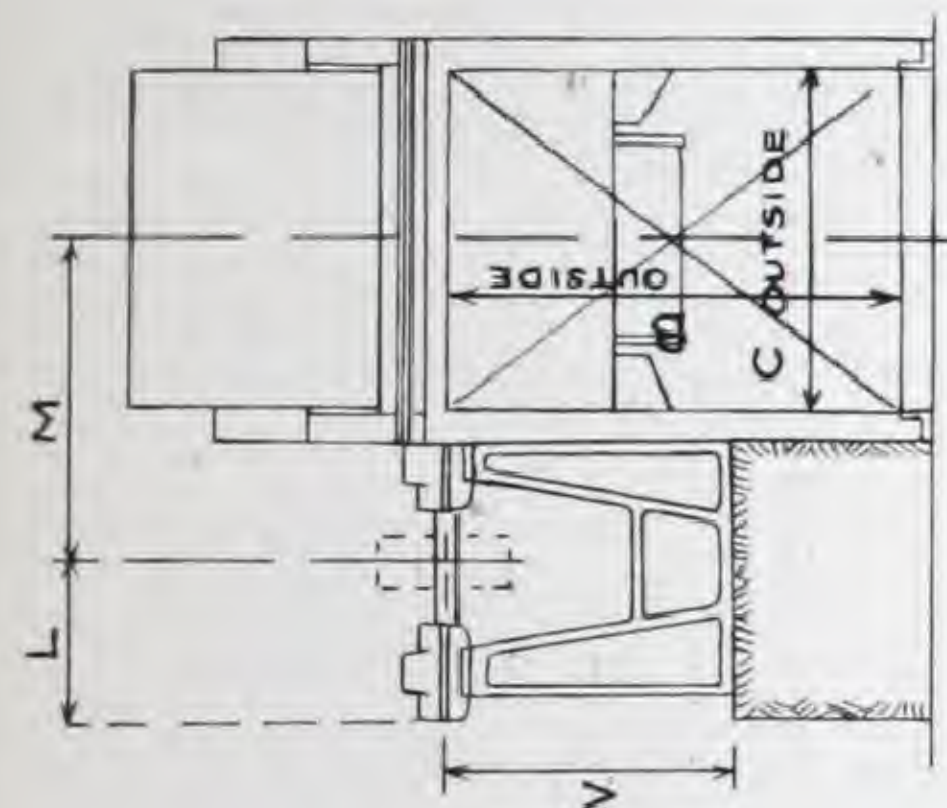
MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.



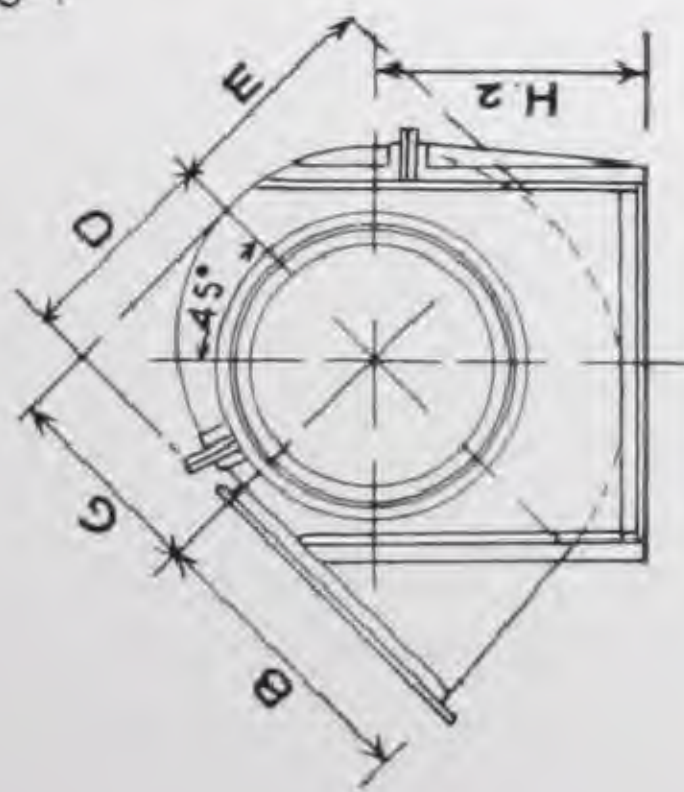
TYPE L.3.



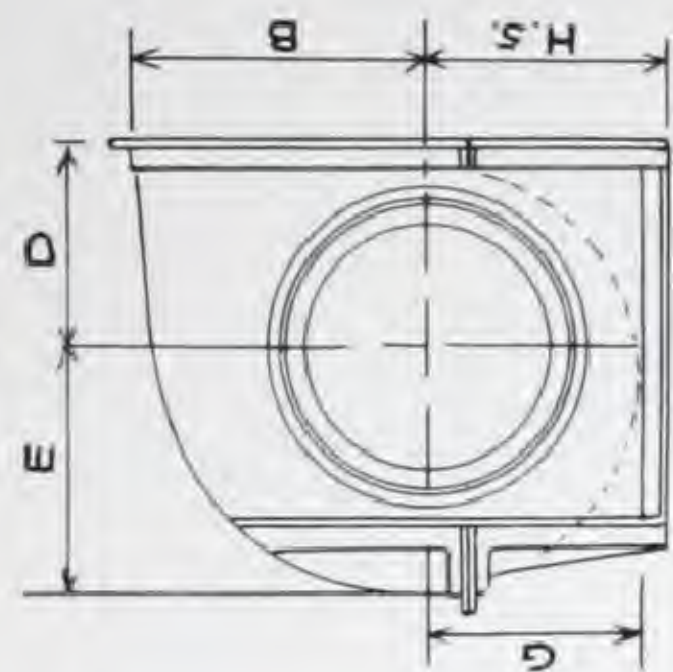
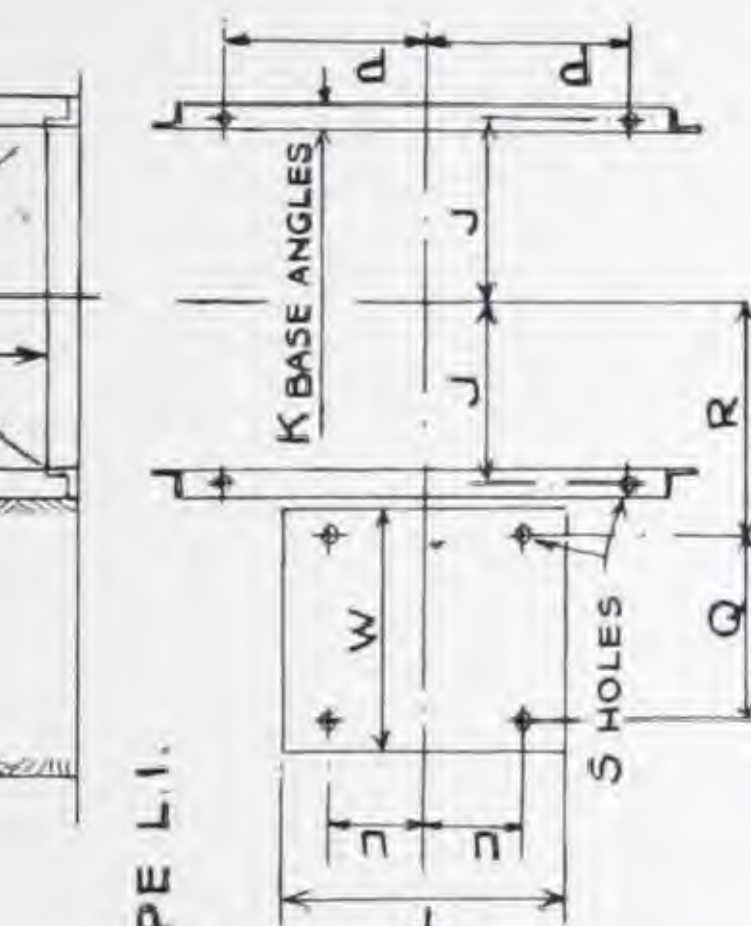
TYPE L.1.



TYPE L.4.

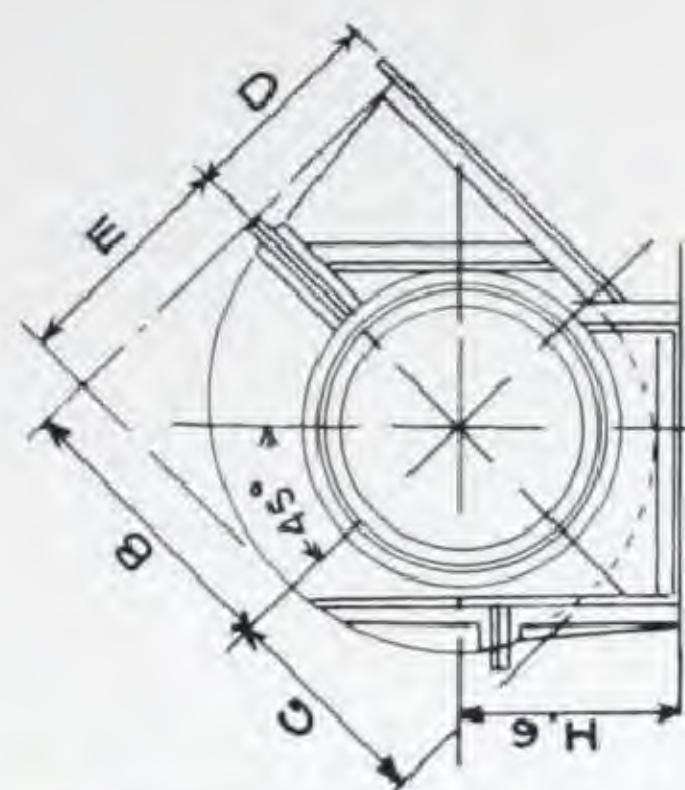
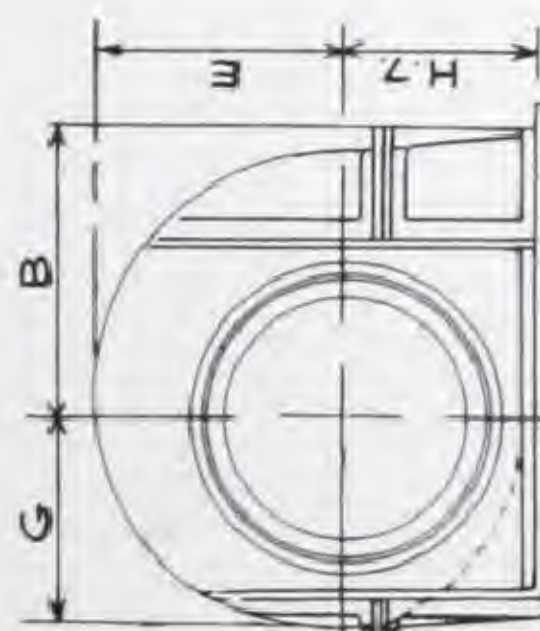


TYPE L.2.



TYPE L.5.

TYPE L.7.



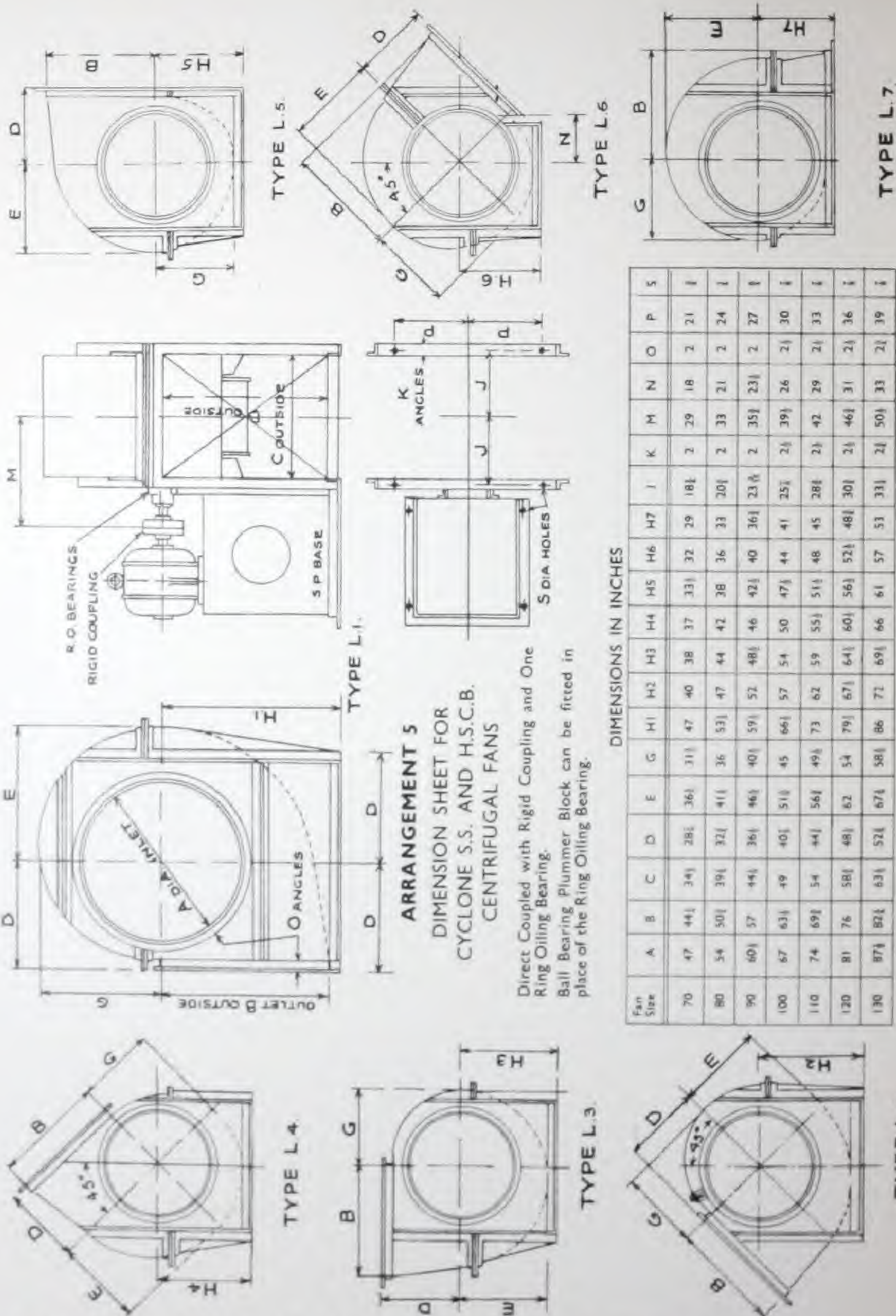
TYPE L.6.

ARRANGEMENT 3. DIMENSION SHEET FOR CYCLONE S.S. & H.S.C.B. CENTRIFUGAL FANS

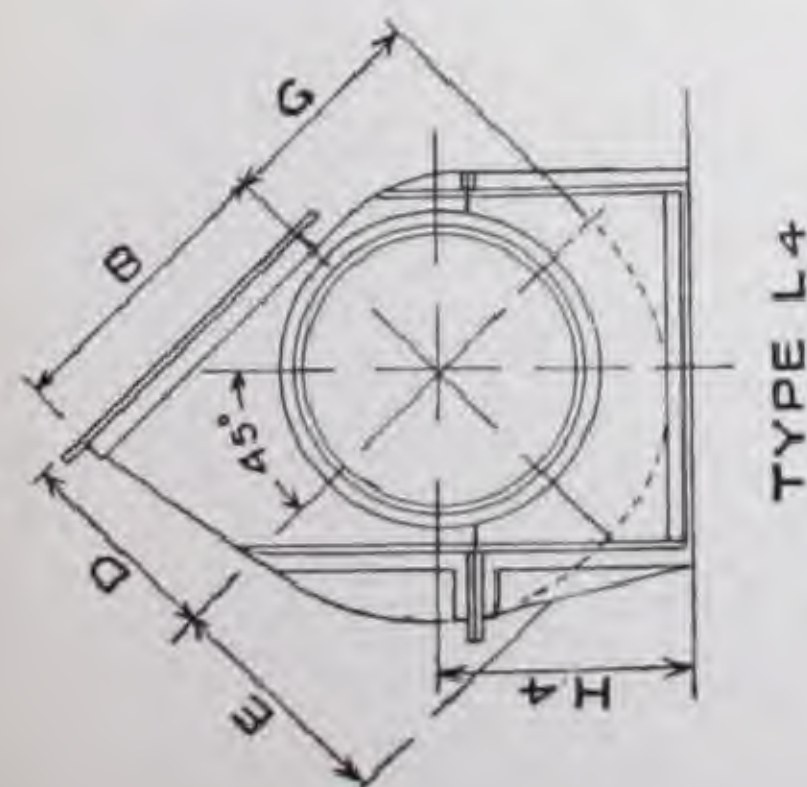
Fan Size	DIMENSIONS IN INCHES																										Pulleys S.S. Fans		Pulleys H.S.C.B. Fans	
	A	B	C	D	E	G	H1	H2	H3	H4	H5	H6	H7	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	Dia.	Wide	
70	47	44½	34½	28½	36½	31½	47	40	38	37	33½	33½	33½	18½	2	18	34½	18	2	21	24	22½	30	30	33½	30	24	7	18	6
80	54	50½	39½	32½	41½	36	53½	47	44	42	38	36	33½	20½	2	19	36½	21	2	24	24	24½	30	30	33½	30	26	7	20	7
90	60½	57	44½	36½	46½	40½	59½	52	48½	46	42½	40	36½	23½	2	19	39½	23½	2	27	24	27½	30	30	33½	30	28	9	22	7
100	67	63½	49	40½	51½	45	66½	57	54	50	47½	44	41½	25½	2½	24½	48½	26	2½	30	34	31½	36	36	34½	42	30	9	26	8
110	74	69½	54	44½	56½	49½	73	62	59	55½	51½	48	45	28½	2½	24½	50½	29	2½	33	34	33½	36	36	34½	42	32	12	28	8
120	81	76	58½	48½	62	54	79½	67½	64½	60½	56½	52½	48½	30½	2½	26	53	31	2½	36	34	36	36	36	34½	42	34	12	30	10
130	87½	82½	63½	52½	67½	58½	86	72	69½	66	61	57	53	33½	2½	27	55½	33	2½	39	34	38½	36	36	34½	42	36	15	32	10

Standard Equipment supplied with Ring Oiling Bearings.

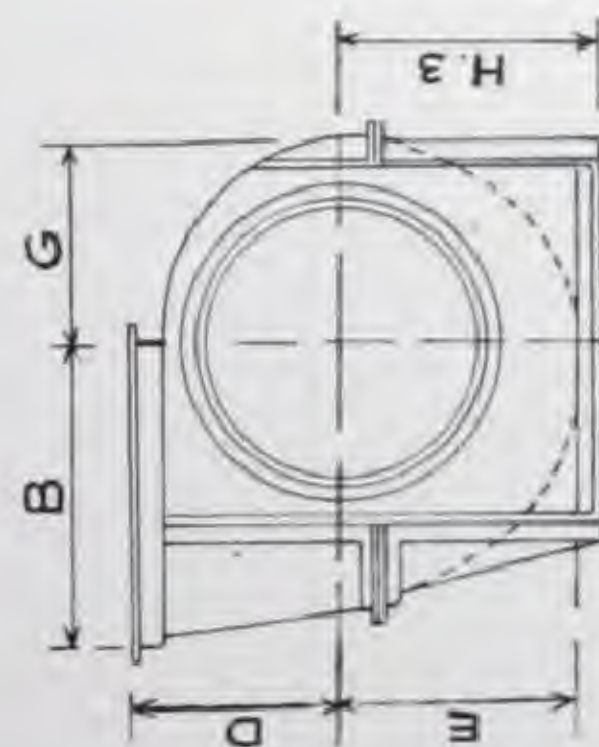
Ball Bearing Plummer Blocks can be fitted when required.



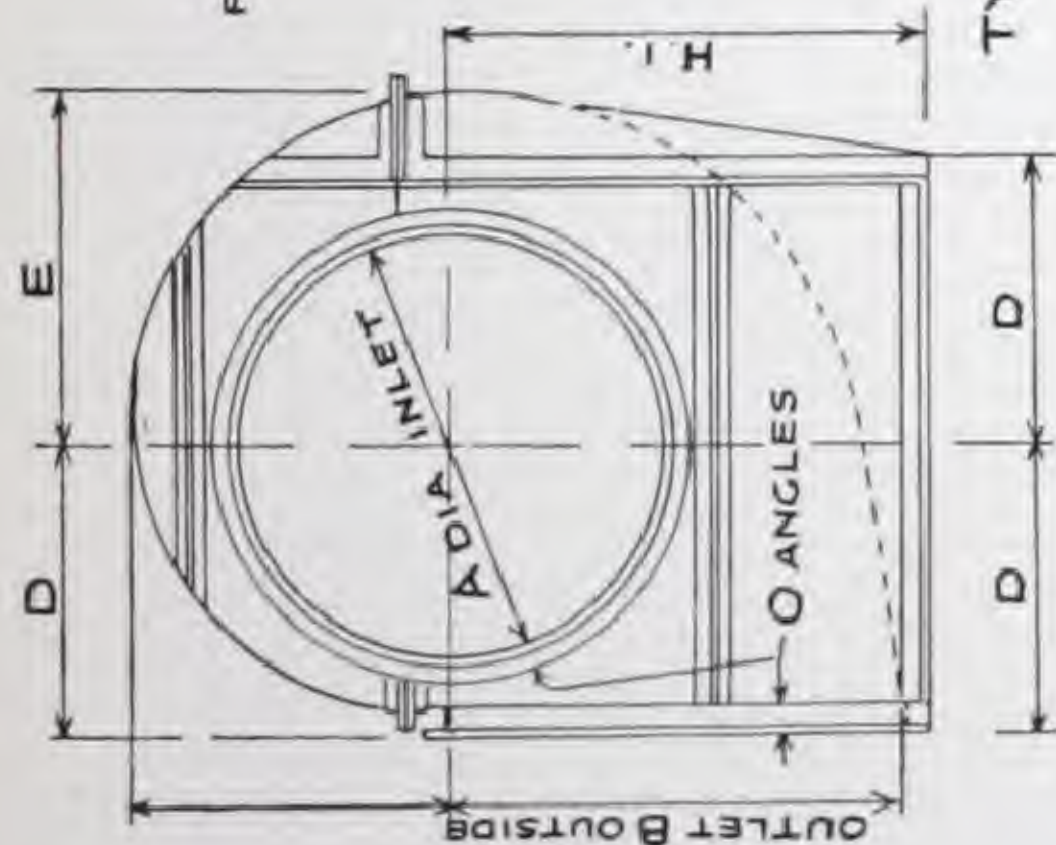
MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.



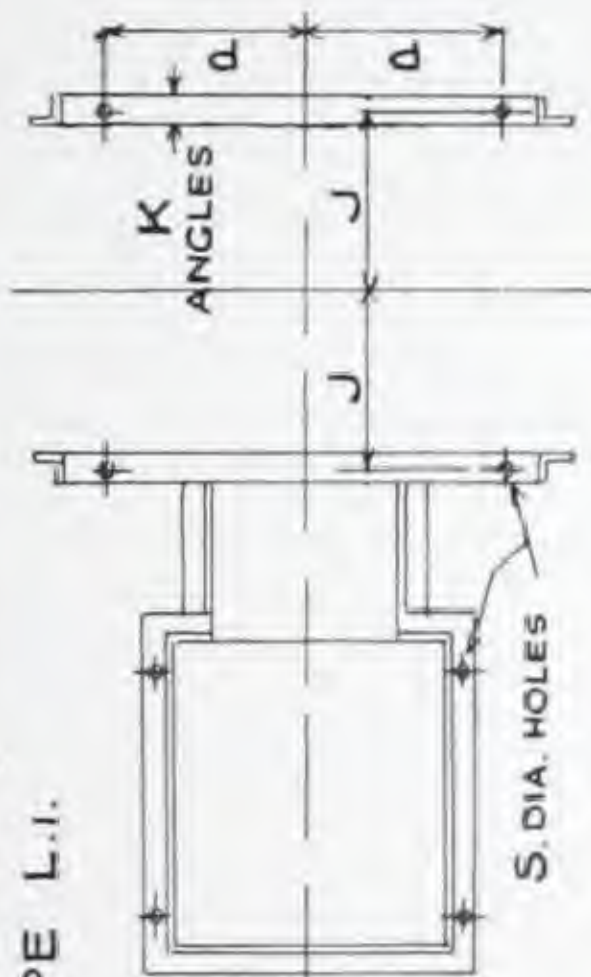
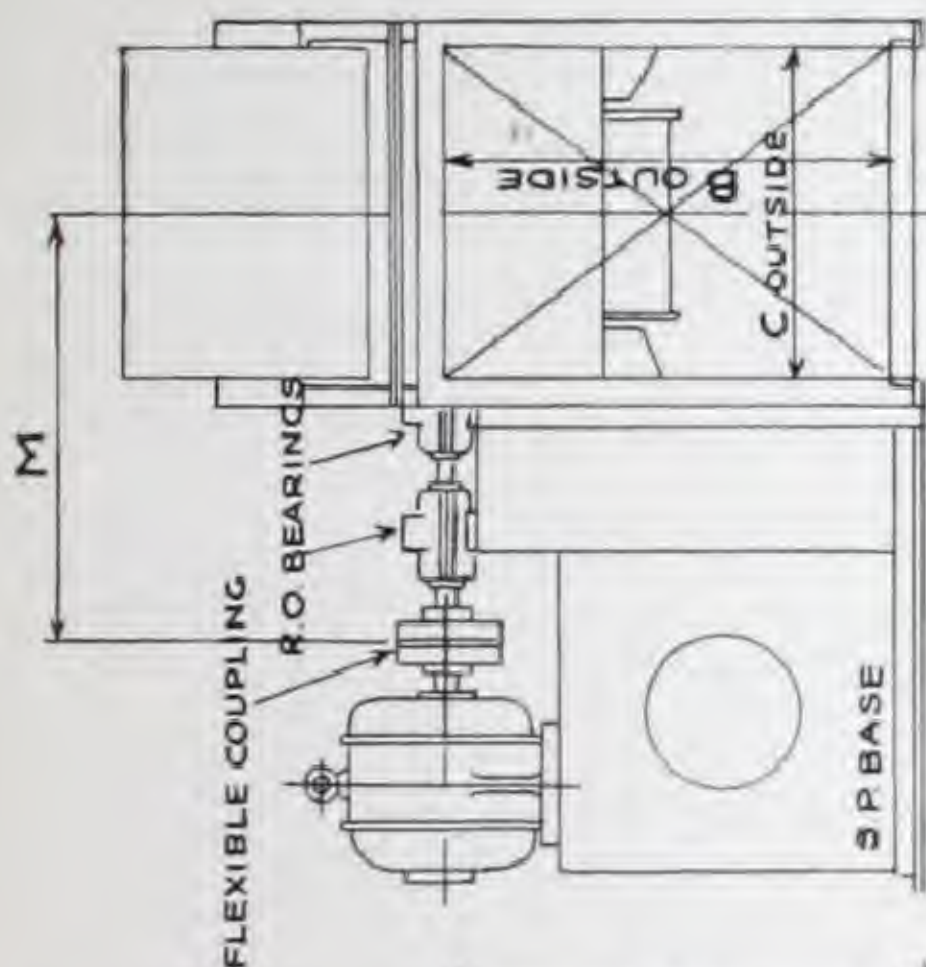
TYPE L4



TYPE L3



TYPE L1



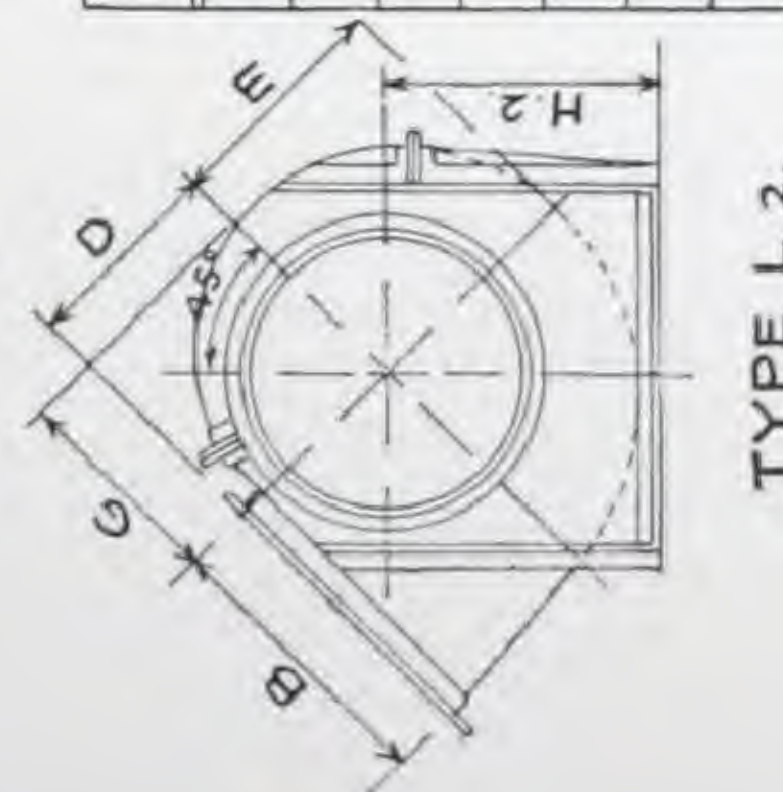
TYPE L1

ARRANGEMENT 6 **DIMENSION SHEET FOR** **CYCLONE S.S. AND H.S.C.B.** **CENTRIFUGAL FANS**

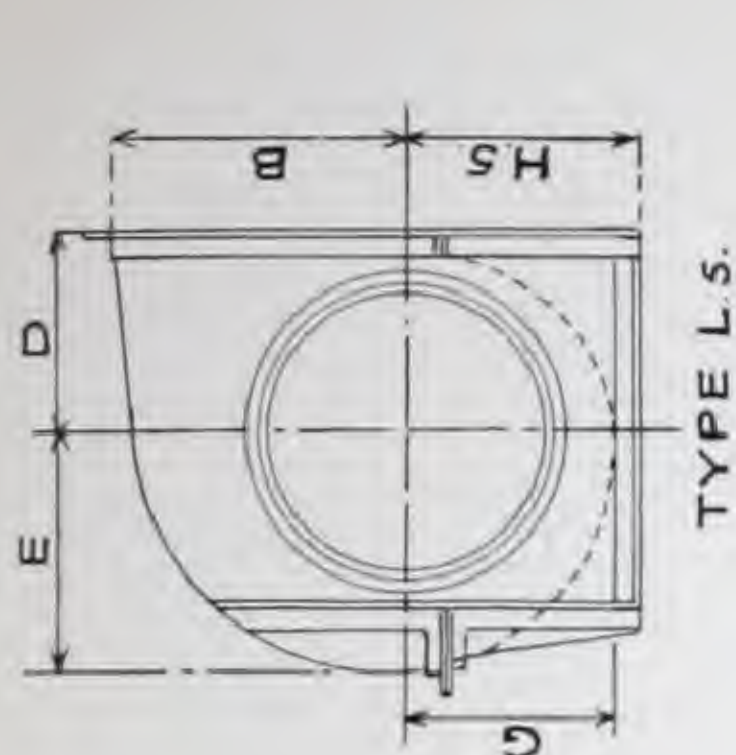
Direct Coupled with Flexible Coupling and Two Ring Oiling Bearings.
 Ball Bearing Plummer Blocks can be fitted in place of the Two Ring Oiling Bearings.

DIMENSIONS IN INCHES

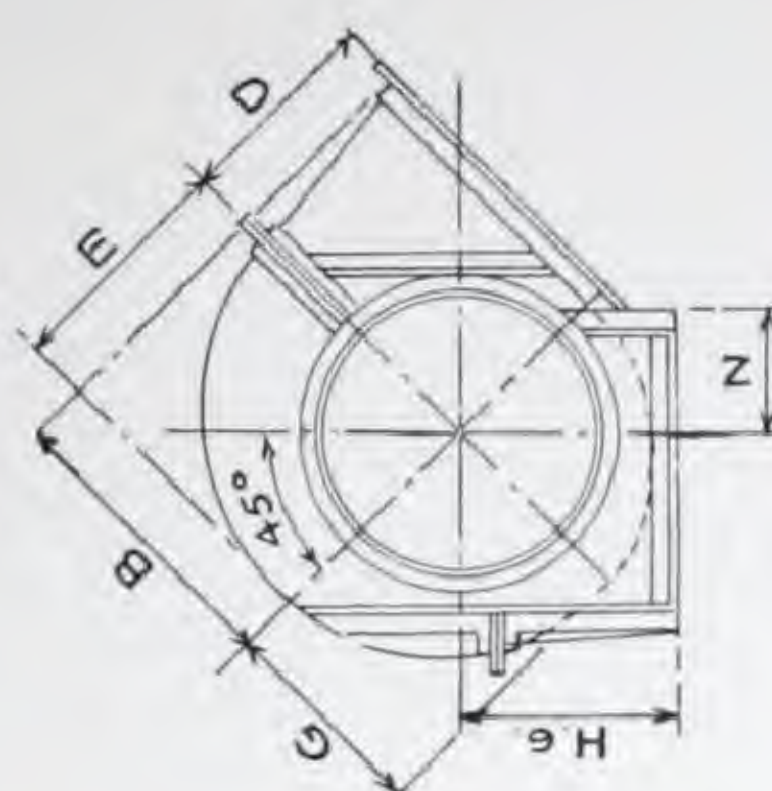
Fan Size	A	B	C	D	E	G	H1	H2	H3	H4	H5	H6	H7	J	K	M	N	O	P	S
70	47	44	34	28	36	31	47	40	38	37	33	32	29	18	2	43	18	2	21	1
80	54	50	39	32	41	36	53	47	44	42	38	36	33	20	2	50	21	2	24	1
90	60	57	44	36	46	40	59	52	48	46	42	40	36	23	2	53	23	2	27	1
100	67	63	49	40	51	45	66	57	54	50	47	44	41	25	2	58	26	2	30	1
110	74	69	54	44	56	49	73	62	59	55	51	48	45	28	2	61	29	2	33	1
120	81	76	58	48	62	54	79	67	64	60	56	52	48	30	2	69	31	2	36	1
130	87	82	63	52	67	58	86	72	69	66	61	57	53	33	2	76	33	2	39	1



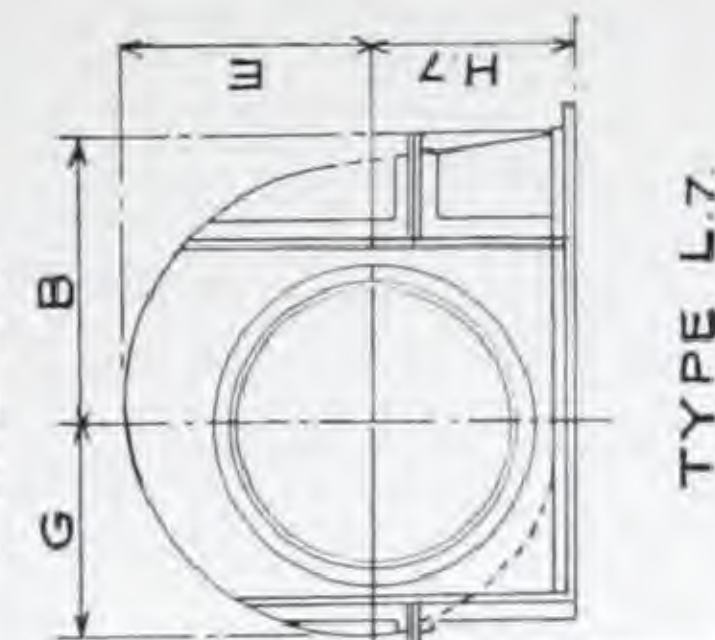
TYPE L2



TYPE L5

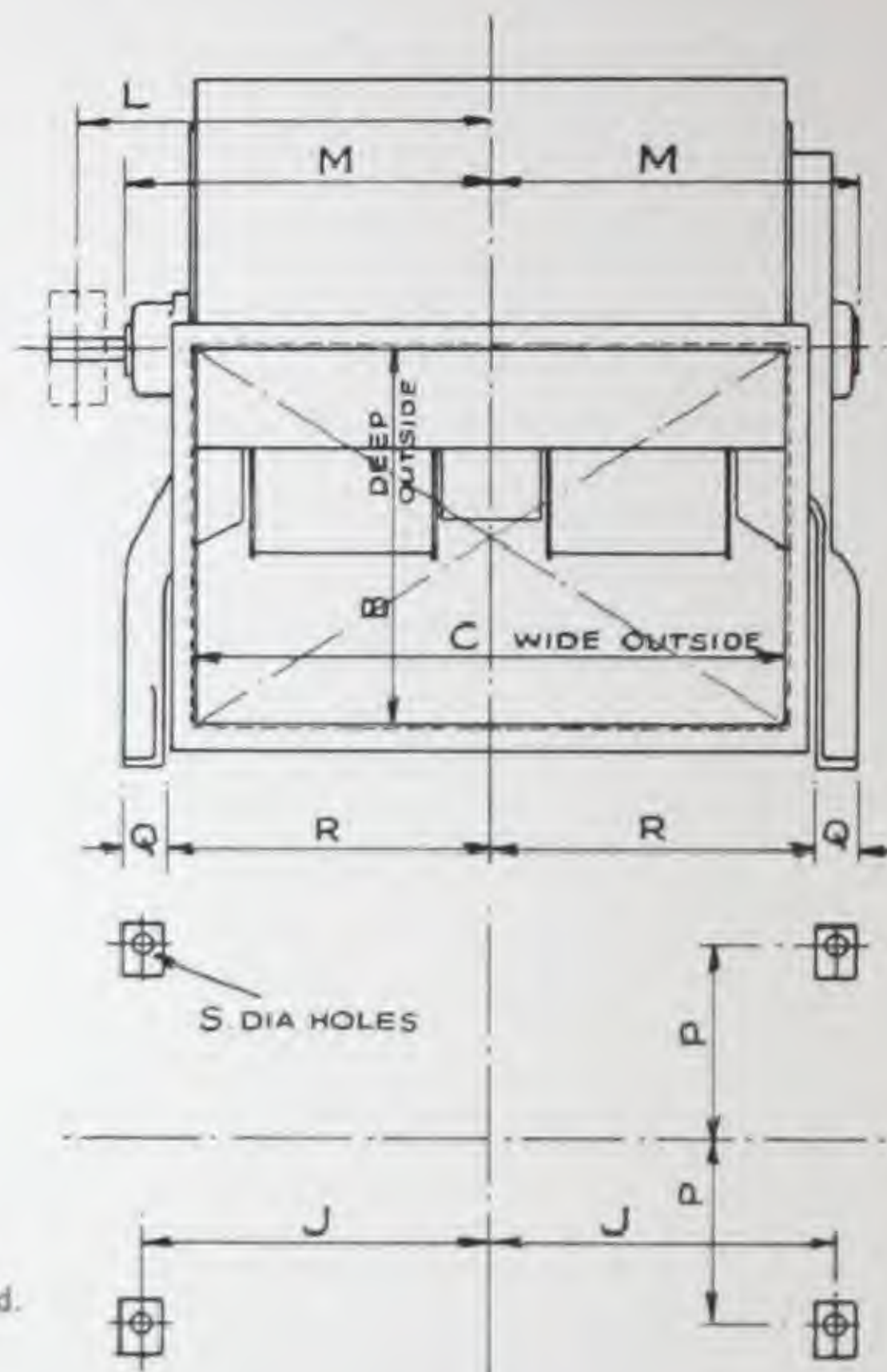
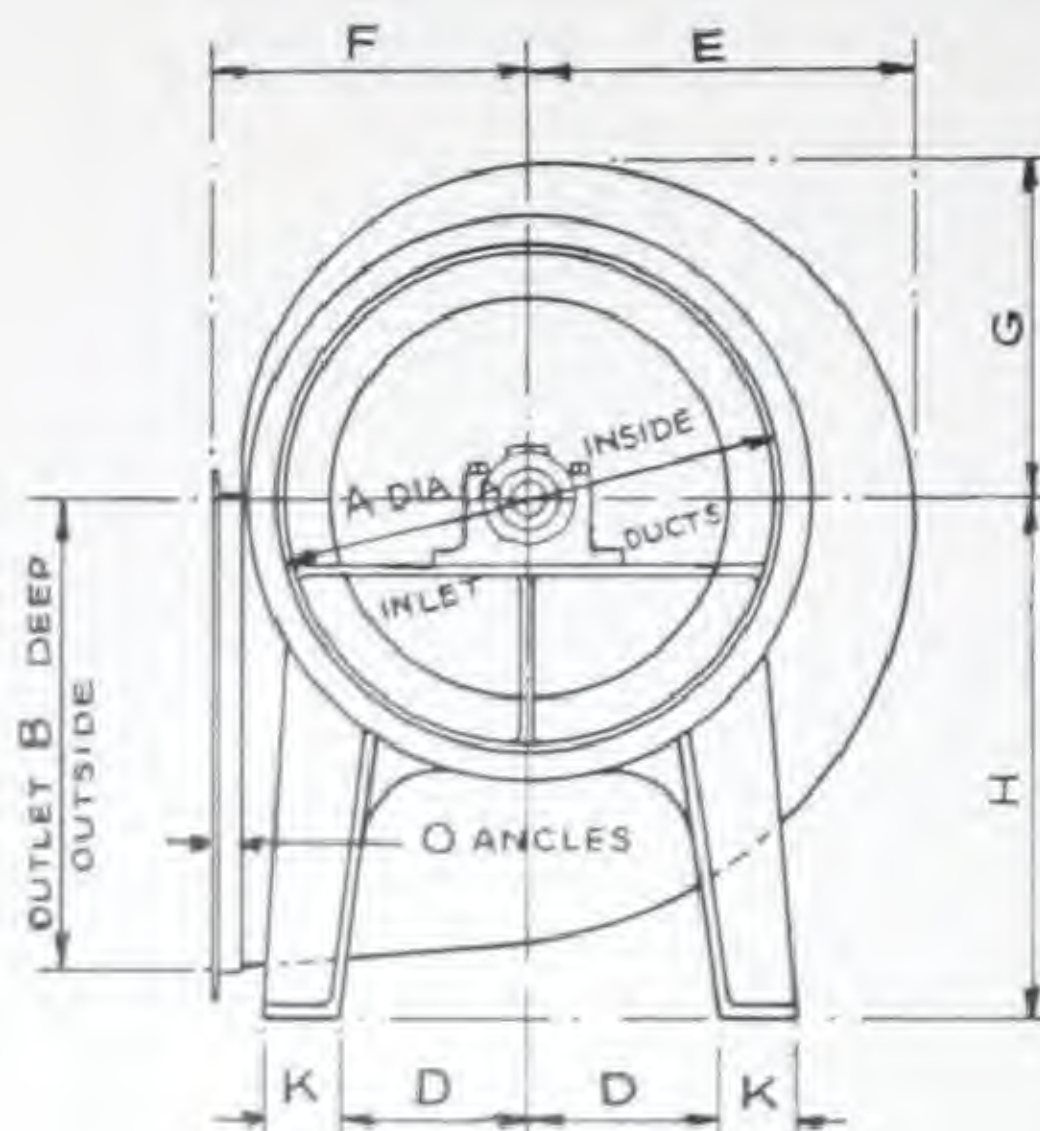


TYPE L6



TYPE L7

CYCLONE



DOUBLE INLET DOUBLE WIDTH

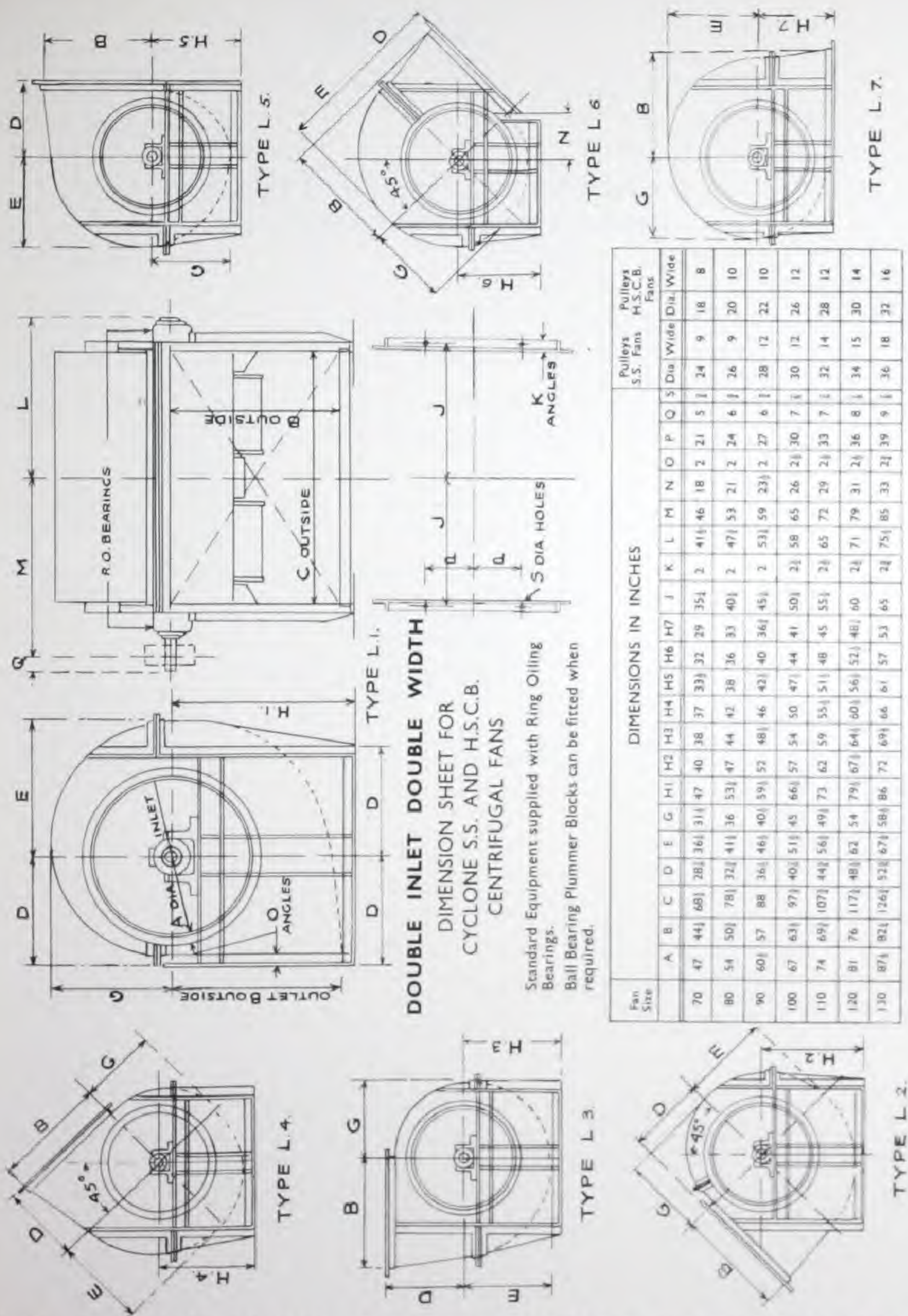
Standard Equipment supplied with Ring Oiling Bearings.
Ball Bearing Plummer Blocks can be fitted when required.

DIMENSION SHEET FOR CYCLONE S.S. AND H.S.C.B. CENTRIFUGAL FANS

DIMENSIONS IN INCHES

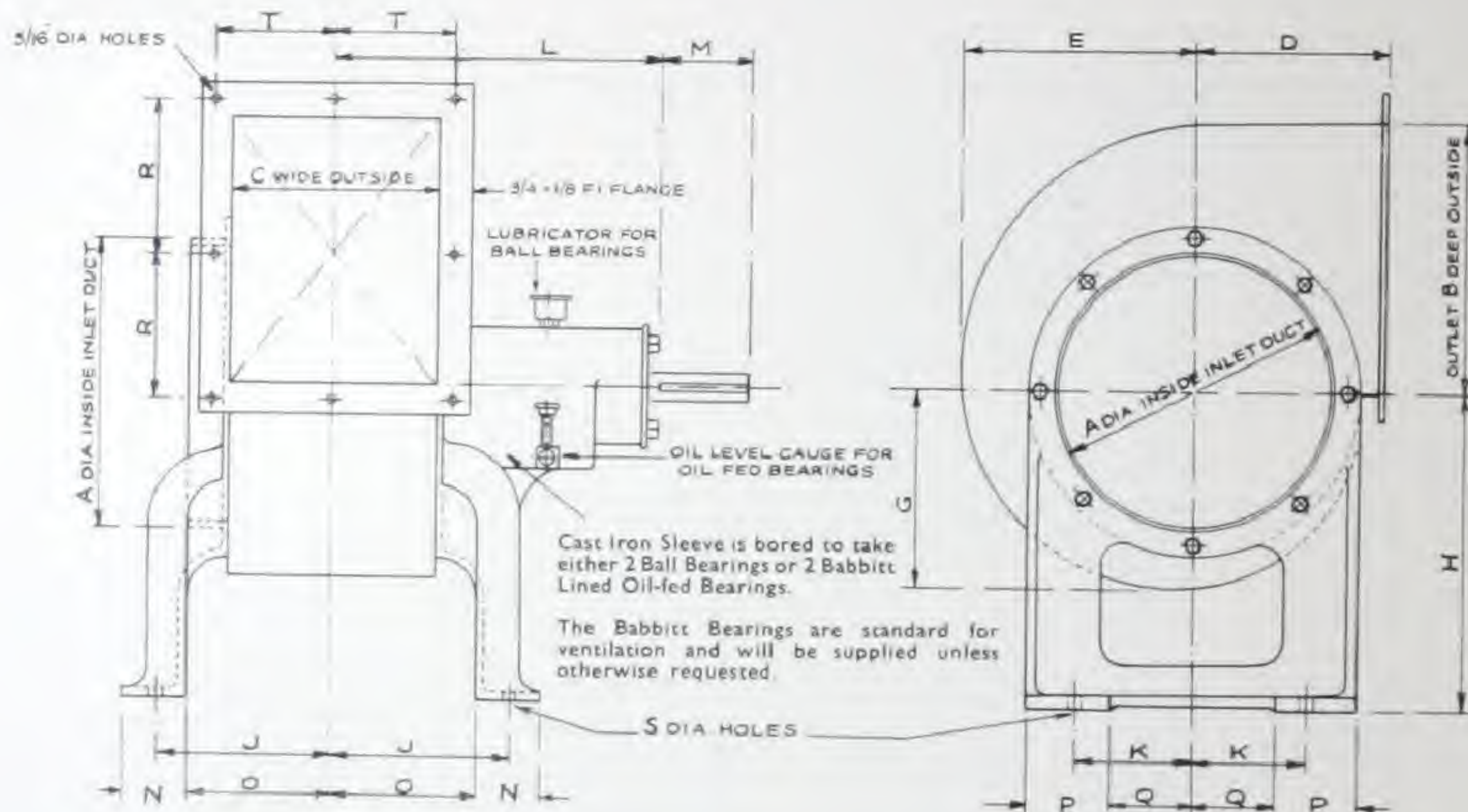
Fan Size	A	B	C	D	E	F	G	H	J	K	L	M	O	P	Q	R	S	Pulleys S.S. Fans		Pulleys H.S.C.B. Fans	
																		Dia.	Wide	Dia.	Wide
20	13	12	19	5	10	8	9	14	12	2	16	14	1	6	1	11	1	6	5	4	3
25	17	15	24	6	12	10	11	17	14	3	19	16	1	8	1	13	1	7	5	5	4
30	20	19	29	7	15	12	13	20	17	3	21	18	1	9	2	16	1	8	5	6	5
35	24	22	34	8	18	14	15	24	19	3	23	20	1	10	2	18	1	10	5	7	5
40	27	25	39	9	20	16	18	27	22	4	26	22	1	11	2	21	1	14	6	10	6
45	30	28	44	10	23	18	20	31	25	4	28	24	1	12	2	23	1	16	6	11	6
50	34	31	48	11	25	20	22	34	27	4	30	26	1	14	2	26	1	18	7	12	7
55	37	34	53	12	28	22	24	37	30	4	34	30	1	15	2	28	1	20	8	14	8
60	41	38	58	13	31	24	27	40	32	4	36	32	1	16	2	31	1	22	8	16	8

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.



CYCLONE

DIMENSIONS SHEET FOR S.S. FANS SPECIAL SERIES FOR SMALL VOLUMES



DIMENSIONS IN INCHES

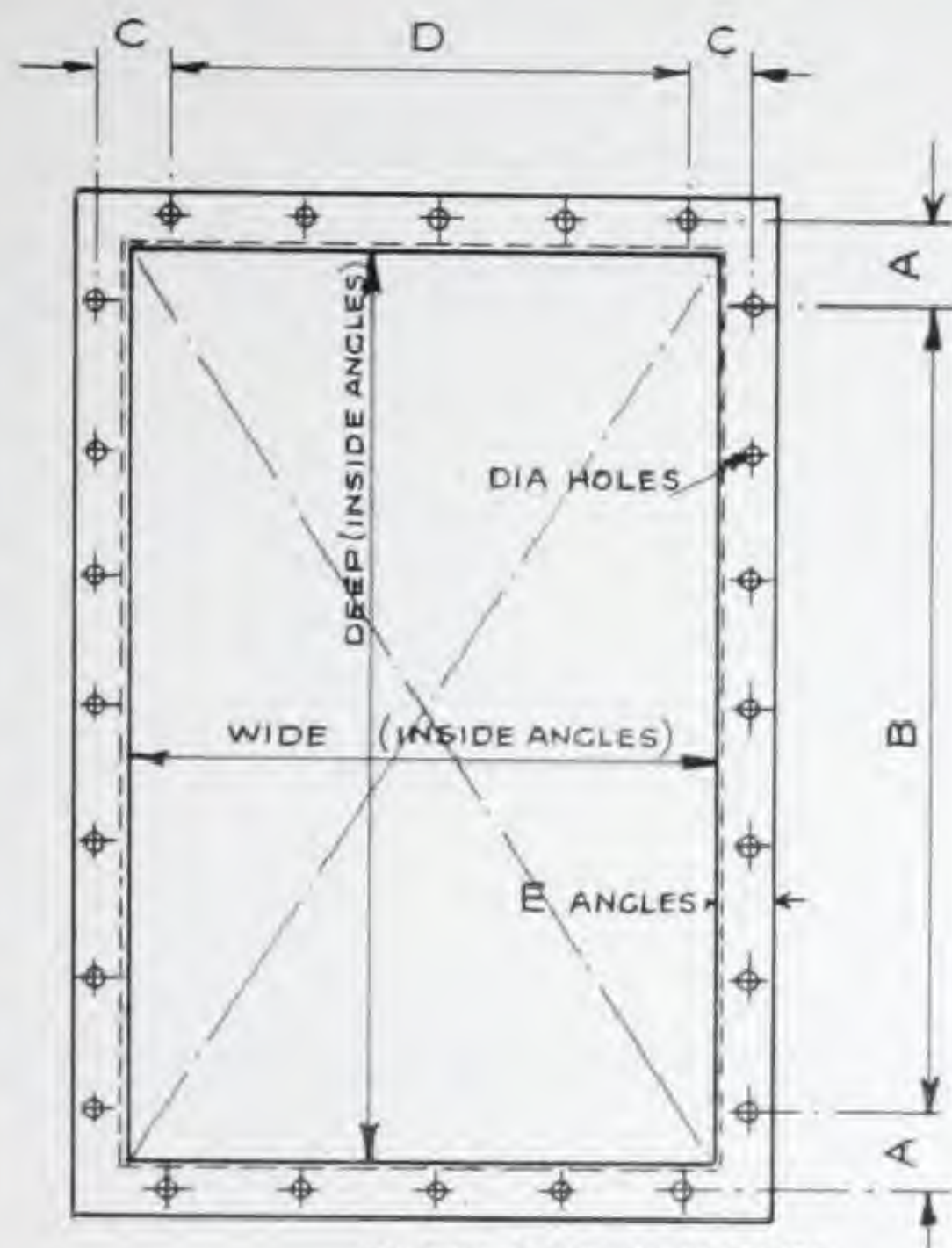
Fan Size	A	B	C	D	E	G	H	J	K	L	M	N	O	P	Q	R	S	T
10	6 1/2	6 1/2	5	4 1/2	5 1/2	4 1/2	7 1/2	4 1/2	2 1/2	7 1/2	3	1 1/2	3 1/2	2	1 1/2	3 1/2	2 1/2	2 1/2
12 1/2	8 1/2	8	6 1/2	5 1/2	6 1/2	5 1/2	9	5	3 1/2	8 1/2	3	1 1/2	4 1/2	2 1/2	2 1/2	4 1/2	2 1/2	3 1/2
15	10 1/2	9 1/2	7 1/2	6 1/2	7 1/2	6 1/2	10 1/2	5 1/2	4	9 1/2	3 1/2	1 1/2	4 1/2	3	2 1/2	5 1/2	2 1/2	4 1/2
17 1/2	12	11 1/2	8 1/2	7 1/2	9	7 1/2	12 1/2	6 1/2	5	10 1/2	3 1/2	1 1/2	5 1/2	3	3 1/2	6	2 1/2	4 1/2

Casings are suitable for either hand or direction of discharge.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

OUTLET DRILLINGS FOR SINGLE WIDTH FANS



DIMENSIONS IN INCHES

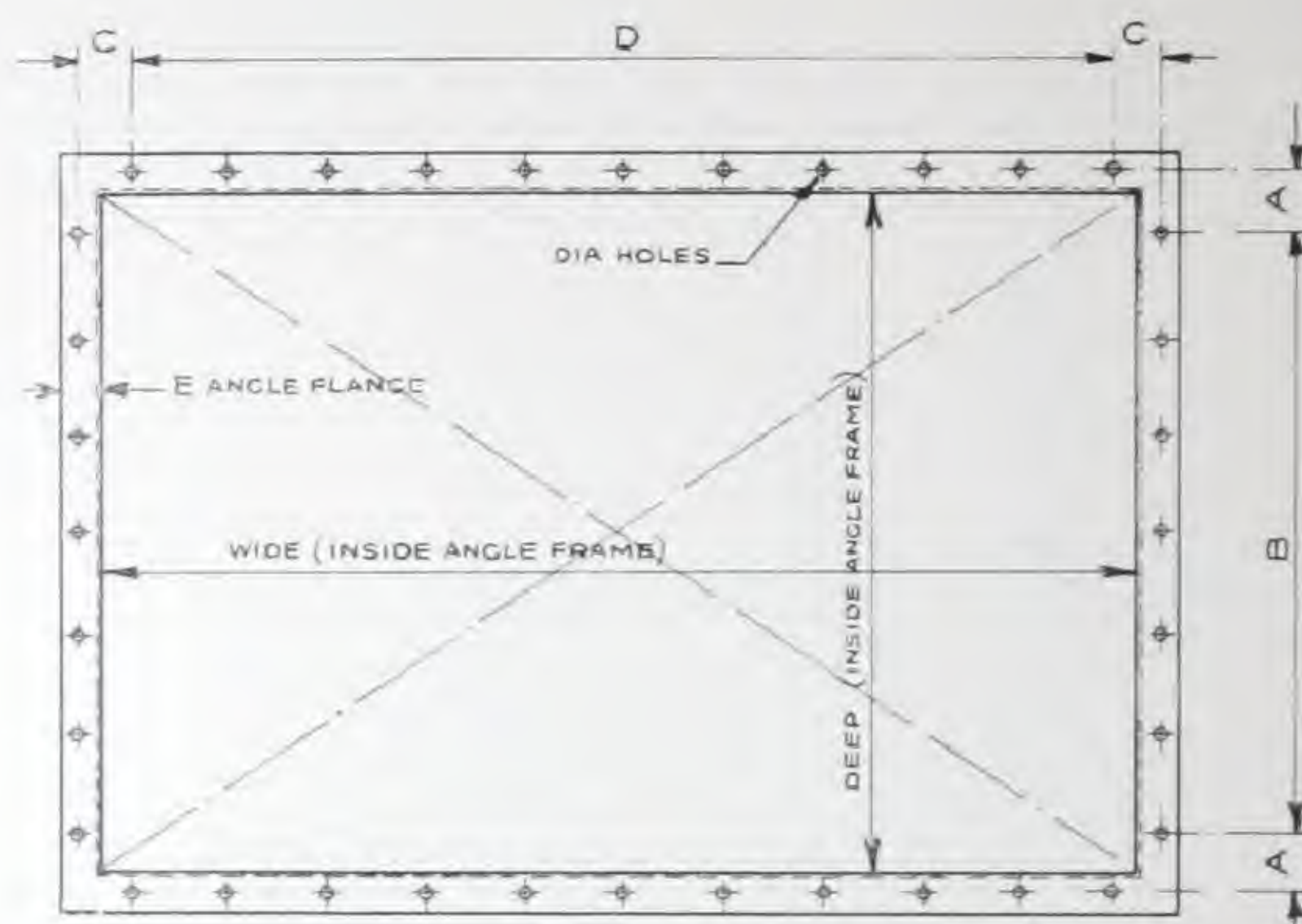
Fan Size	OUTLET		A	B	No. of Pitches in Depth	Pitch of Holes	C	D	No. of Pitches in Width	Pitch of Holes	Dia. of Holes	E Outlet Angles
	Deep Outside	Wide Outside										
20	12 $\frac{1}{8}$	19 $\frac{1}{8}$	2 $\frac{1}{8}$	10	2	5	$\frac{1}{8}$	20	4	5	$\frac{1}{8}$	1 $\frac{1}{2}$
25	15 $\frac{1}{8}$	24 $\frac{1}{8}$	1 $\frac{1}{8}$	15	3	5	3	20	4	5	$\frac{1}{8}$	1 $\frac{1}{2}$
30	19	29 $\frac{1}{8}$	2	16 $\frac{1}{2}$	3	5 $\frac{1}{2}$	1 $\frac{1}{8}$	27 $\frac{1}{2}$	5	5 $\frac{1}{2}$	$\frac{1}{8}$	1 $\frac{1}{2}$
35	22 $\frac{1}{8}$	34 $\frac{1}{8}$	1 $\frac{1}{8}$	20	4	5	2 $\frac{1}{8}$	30	6	5	$\frac{1}{8}$	1 $\frac{1}{2}$
40	25 $\frac{1}{8}$	39 $\frac{1}{8}$	2 $\frac{1}{8}$	22	4	5 $\frac{1}{2}$	1 $\frac{1}{8}$	38 $\frac{1}{2}$	7	5 $\frac{1}{2}$	$\frac{1}{8}$	1 $\frac{1}{2}$
45	28 $\frac{1}{8}$	44	3 $\frac{1}{8}$	24	4	6	1 $\frac{1}{8}$	42	7	6	$\frac{1}{8}$	1 $\frac{1}{2}$
50	31 $\frac{1}{8}$	48 $\frac{1}{8}$	1 $\frac{1}{8}$	30	6	5	2 $\frac{1}{8}$	45	9	5	$\frac{1}{8}$	1 $\frac{1}{2}$
55	34 $\frac{1}{8}$	53 $\frac{1}{8}$	1 $\frac{1}{8}$	33	6	5 $\frac{1}{2}$	3 $\frac{1}{8}$	49 $\frac{1}{2}$	9	5 $\frac{1}{2}$	$\frac{1}{8}$	1 $\frac{1}{2}$
60	38	58 $\frac{1}{8}$	2	36	6	6	3 $\frac{1}{8}$	54	9	6	$\frac{1}{8}$	1 $\frac{1}{2}$
70	44 $\frac{1}{8}$	68 $\frac{1}{8}$	3 $\frac{1}{8}$	39	6	6 $\frac{1}{2}$	2 $\frac{1}{8}$	65	10	6 $\frac{1}{2}$	$\frac{1}{8}$	2
80	50 $\frac{1}{8}$	78 $\frac{1}{8}$	3 $\frac{1}{8}$	45 $\frac{1}{2}$	7	6 $\frac{1}{2}$	4 $\frac{1}{8}$	71 $\frac{1}{2}$	11	6 $\frac{1}{2}$	$\frac{1}{8}$	2
90	57	88	3 $\frac{1}{8}$	52	8	6 $\frac{1}{2}$	2 $\frac{1}{8}$	84 $\frac{1}{2}$	13	6 $\frac{1}{2}$	$\frac{1}{8}$	2
100	63 $\frac{1}{8}$	97 $\frac{1}{8}$	3 $\frac{1}{8}$	58 $\frac{1}{2}$	9	6 $\frac{1}{2}$	4 $\frac{1}{8}$	91	14	6 $\frac{1}{2}$	$\frac{1}{8}$	2 $\frac{1}{2}$
110	69 $\frac{1}{8}$	107 $\frac{1}{8}$	3 $\frac{1}{8}$	65	10	6 $\frac{1}{2}$	3 $\frac{1}{8}$	104	16	6 $\frac{1}{2}$	$\frac{1}{8}$	2 $\frac{1}{2}$
120	76	117 $\frac{1}{8}$	4 $\frac{1}{8}$	70	10	7	4	112	16	7	$\frac{1}{8}$	2 $\frac{1}{2}$
130	82 $\frac{1}{8}$	126 $\frac{1}{8}$	4 $\frac{1}{8}$	77	11	7	5 $\frac{1}{8}$	119	17	7	$\frac{1}{8}$	2 $\frac{1}{2}$

ERRATA

This DIMENSIONS TABLE applies to PAGE 90.

CYCLONE

OUTLET DRILLINGS FOR DOUBLE WIDTH FANS



DIMENSIONS IN INCHES

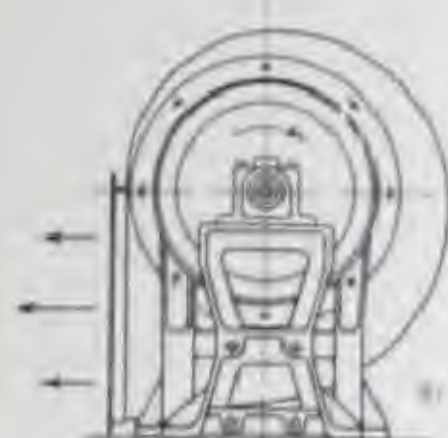
Fan Size	OUTLET		A	B	No. of Pitches in Depth	Pitch of Holes	C	D	No. of Pitches in Width	Pitch of Holes	Dia. of Holes	E Outlet Angles
	Deep Outside	Wide Outside										
20	12 $\frac{11}{16}$	9 $\frac{7}{8}$	2 $\frac{1}{8}$	10	2	5	1 $\frac{11}{16}$	8	2	4	$\frac{5}{16}$	1 $\frac{1}{2}$
25	15 $\frac{1}{2}$	12 $\frac{5}{16}$	1 $\frac{3}{16}$	15	3	5	2 $\frac{3}{16}$	9 $\frac{1}{2}$	2	4 $\frac{1}{2}$	$\frac{5}{16}$	1 $\frac{1}{2}$
30	19	14 $\frac{1}{2}$	2	16 $\frac{1}{2}$	3	5 $\frac{1}{2}$	2 $\frac{1}{2}$	11	2	5 $\frac{1}{2}$	$\frac{5}{16}$	1 $\frac{1}{2}$
35	22 $\frac{1}{2}$	17 $\frac{1}{8}$	1 $\frac{11}{16}$	20	4	5	1 $\frac{11}{16}$	15	3	5	$\frac{3}{8}$	1 $\frac{1}{2}$
40	25 $\frac{1}{2}$	19 $\frac{1}{8}$	2 $\frac{7}{16}$	22	4	5 $\frac{1}{2}$	1 $\frac{11}{16}$	17 $\frac{1}{2}$	3	5 $\frac{1}{2}$	$\frac{3}{8}$	1 $\frac{1}{2}$
45	28 $\frac{1}{2}$	22 $\frac{1}{16}$	3 $\frac{1}{8}$	24	4	6	1 $\frac{7}{8}$	20	4	5	$\frac{3}{8}$	1 $\frac{1}{2}$
50	31 $\frac{1}{2}$	24 $\frac{1}{2}$	1 $\frac{1}{2}$	30	6	5	2 $\frac{1}{2}$	22	4	5 $\frac{1}{2}$	$\frac{3}{8}$	1 $\frac{1}{2}$
55	34 $\frac{1}{2}$	27	1 $\frac{11}{16}$	33	6	5 $\frac{1}{2}$	2 $\frac{3}{8}$	24	4	6	$\frac{3}{8}$	1 $\frac{1}{2}$
60	38	29 $\frac{1}{2}$	2	36	6	6	3 $\frac{7}{16}$	25	4	6 $\frac{1}{2}$	$\frac{1}{2}$	1 $\frac{1}{2}$
70	44 $\frac{1}{4}$	34 $\frac{1}{4}$	3 $\frac{1}{2}$	39	6	6 $\frac{1}{2}$	2	32 $\frac{1}{2}$	5	6 $\frac{1}{2}$	$\frac{1}{2}$	2
80	50 $\frac{1}{2}$	39 $\frac{1}{2}$	3 $\frac{1}{2}$	45 $\frac{1}{2}$	7	6 $\frac{1}{2}$	1 $\frac{1}{2}$	39	6	6 $\frac{1}{2}$	$\frac{1}{2}$	2
90	57	44 $\frac{1}{2}$	3 $\frac{5}{8}$	52	8	6 $\frac{1}{2}$	3 $\frac{11}{16}$	39	6	6 $\frac{1}{2}$	$\frac{1}{2}$	2
100	63 $\frac{1}{2}$	49	3 $\frac{7}{8}$	58 $\frac{1}{2}$	9	6 $\frac{1}{2}$	3 $\frac{1}{2}$	45 $\frac{1}{2}$	7	6 $\frac{1}{2}$	$\frac{1}{2}$	2 $\frac{1}{2}$
110	69 $\frac{1}{2}$	54	3 $\frac{1}{2}$	65	10	6 $\frac{1}{2}$	2 $\frac{3}{8}$	52	8	6 $\frac{1}{2}$	$\frac{1}{2}$	2 $\frac{1}{2}$
120	76	58 $\frac{1}{2}$	4 $\frac{1}{8}$	70	10	7	2 $\frac{1}{2}$	56	8	7	$\frac{1}{2}$	2 $\frac{1}{2}$
130	82 $\frac{1}{2}$	63 $\frac{1}{2}$	4 $\frac{1}{2}$	77	11	7	5 $\frac{1}{8}$	56	8	7	$\frac{1}{2}$	2 $\frac{1}{2}$

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

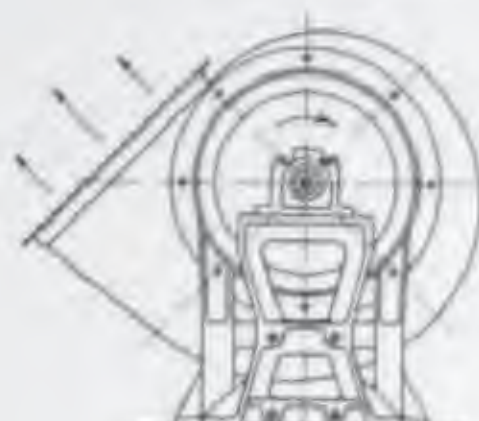
CYCLONE

DIAGRAMS SHEWING DIRECTIONS OF ROTATION AND ANGLES OF DISCHARGE FOR ALL CYCLONE FANS AS VIEWED FROM THE DRIVING SIDE.

— RIGHT HAND FANS. —



R1.



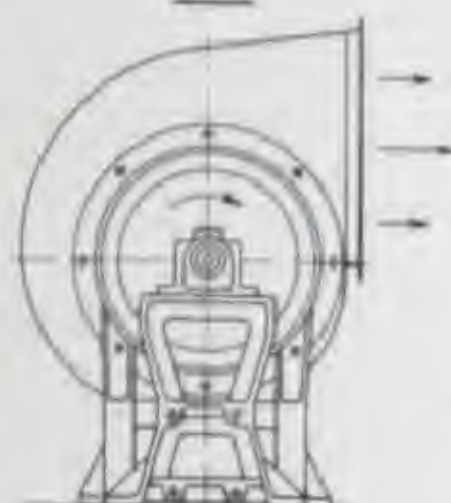
R2.



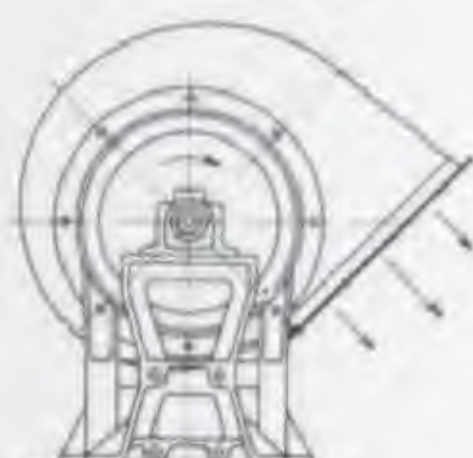
R3.



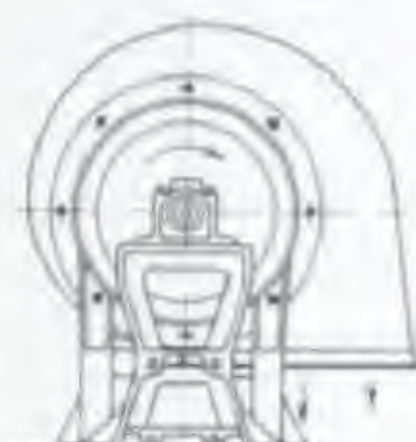
R4.



R5.



R6.



R7.



R8.

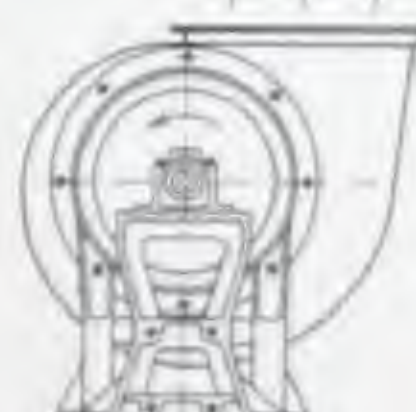
— LEFT HAND FANS. —



L1.



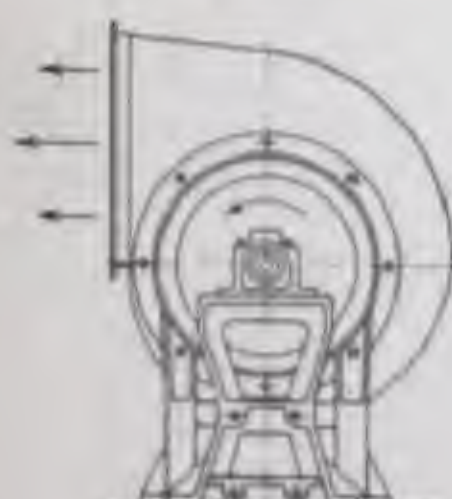
L2.



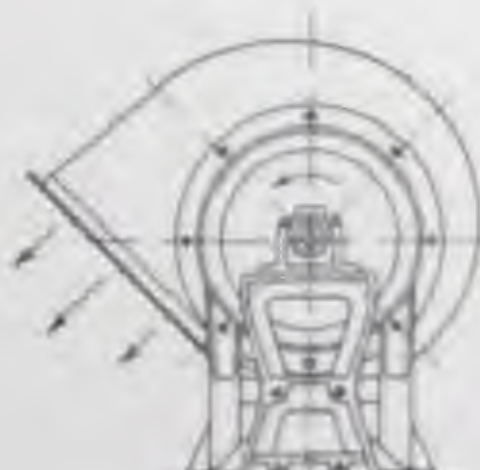
L3.



L4.



L5.



L6.



L7.



L8.

The S.S. and H.S.C.B. Fans are so constructed with cast iron side frames up to and including size 60 that they may be adjusted to any of the above types at will.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

GOOD OPERATING VELOCITIES AND TIP SPEEDS FOR S.S. MULTIVANE VENTILATING FANS

Resistance Head in inches W.G.	Outlet Velocity in feet per minute	Tip Speed in feet per minute
1/4	1000 to 1200	1520 to 1690
1/2	1000 " 1200	1760 " 1870
3/4	1100 " 1300	1970 " 2100
1	1100 " 1400	2210 " 2300
1 1/4	1200 " 1400	2430 " 2500
1 1/2	1300 " 1600	2620 " 2720
1 3/4	1400 " 1800	2800 " 2970
2	1500 " 1900	3130 " 3230
2 1/4	1600 " 2000	3450 " 3570
2 1/2	1700 " 2200	3720 " 3840
2 3/4	1800 " 2400	3960 " 4120
3	2000 " 2600	4400 " 4500
3 1/2	2200 " 2800	4850 " 4980

GUIDE TO FAN OUTLET VELOCITIES FOR SILENT RUNNING.

	<i>Inlet</i>	<i>Extract</i>
Sound Studios, Churches, Operating Theatres, Libraries	800 to 1000 ft./min.	1000 to 1400 ft./min.
Cinemas, Theatres, Ballrooms	1000 to 1500 ft./min.	1200 to 1600 ft./min.
Restaurants, Hotels, Public Buildings, Offices, Stores	1200 to 1600 ft./min.	1400 to 1800 ft./min.
This table is a guide only and careful consideration should always be given to relative positions of Fans to Inlet or Extract Gratings, and possible transmission of noise through building structure.		

CIRCUMFERENCE OF IMPELLER IN FEET FOR EACH FAN SIZE TYPES S.S. & H.S.C.B.

Fan Size	Circumference of Impeller in feet	Fan Size	Circumference of Impeller in feet
20	3.41	90	15.30
25	4.25	100	17.00
30	5.10	110	18.70
35	5.95	120	20.40
40	6.81	130	22.10
45	7.68	140	23.80
50	8.50	150	25.50
55	9.36	160	27.20
60	10.20	170	28.90
70	11.90	180	30.60
80	13.60		

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

HOW TO SELECT A "CYCLONE" VENTILATING FAN FOR STANDARD CONDITIONS

In the selection of fans for ventilation it is required to know:—

- (1) Cubic feet of air per minute to be moved.
- (2) Static pressure or resistance head required to move the air through the system.
- (3) What degree of noise is permissible.
- (4) The motive power available.

Where noise is traceable to the Fan it is caused either by excessive peripheral speed of the runner, or the Fan is too small for the duty required. A noisy Fan is usually one operated at a point considerably beyond its maximum efficiency. Fans should be selected as near as possible to the point of maximum efficiency, the cost of running, and the noise can then be held within control.

Opposite are listed Resistance Heads, corresponding outlet velocities, and tip speeds in feet per minute for the Cyclone S.S. Multivane Ventilating Fan. The operating velocities and tip speeds recommended are about the point of maximum efficiency for the S.S. Type Fan, and reference to the tables given will greatly aid in the selection of a suitable Fan.

Single Inlet Single Width Fans are usually selected wherever possible.

When Double Inlet Double Width Fans are used, care should be taken to see that both inlets have the same free area, otherwise the Fan will not operate properly, one half of the impeller delivering more air than the other half.

For double or parallel operation the Cyclone H.S.C.B. is most satisfactory. The corresponding peripheral or tip speeds for this curved back bladed Fan are approximately twice that of the Slow Speed S.S. or curved forward Fan. The outlet velocities for corresponding volumes and pressures (or resistance heads) are the same for both S.S. and H.S.C.B. Fans.

The static pressures (or resistance heads) commonly used for the several typical ventilating installations are:—

For Public Buildings.

Ventilating only ... ..	... $\frac{3}{8}$ " to $\frac{1}{2}$ " W.G.
Heating and Ventilating ... ..	... $\frac{1}{2}$ " to 1" W.G.
Heating and Ventilating including Air Washer ...	... $\frac{3}{4}$ " to $1\frac{1}{4}$ " W.G.

For Factories or Equivalent.

Heating ... ..	... $\frac{3}{4}$ " to $1\frac{1}{2}$ " W.G.
Heating and Ventilating, including Air Washer ...	... $1\frac{1}{4}$ " to 2" W.G.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

HOW TO SELECT A CYCLONE FAN FOR SPECIAL CONDITIONS OF TEMPERATURE AND ALTITUDE.

WHERE Fans are required to handle hot air or to work at high altitudes the size and full data of the Fan can be obtained from the tables in this Catalogue, and we give below several examples of the method of arriving at the correct figures from the tables.

All the following examples are based on the fan law, *i.e.*, "For a constant capacity and speed, the horse power and pressure vary directly as the barometric pressure, and inversely as the absolute temperature."

How to choose a Fan from the tables, handling air at a temperature higher than 60 degs. F., at which the tables are computed.

Example.

Required, an S.S. Type Fan to deliver 30,000 C.F.M. at a temperature of 200 degs. F. and against a resistance head of 1.5" W.G. If the outlet velocity is not to exceed 2,500 feet per minute what will be the size, speed and horse power of the Fan?

The first step is to convert the given conditions to standard list conditions.

Equivalent pressure at 60 degs. F. corresponding to 1.5" R.H. at 200 degs. F. $\left. \vphantom{\begin{array}{l} \text{Equivalent pressure at 60 degs. F. corresponding} \\ \text{to 1.5" R.H. at 200 degs. F.} \end{array}} \right\} = 1.5 \times \left(\frac{460+200}{460+60} \right) = 1.90 \text{ R.H.}$

Therefore, the Fan chosen from the tables to handle 30,000 C.F.M. against 1.90 R.H. will deliver the same volume of air at the same speed against 1.5" R.H. if the temperature is 200 degs. F.

From the tables on page 22 it will be found that a No. 80 Fan will deliver 30,000 C.F.M. against 1.90" R.H. when running at a speed of 290 R.P.M. and taking 14.5 B.H.P. The horse power, however, will be reduced in accordance with the Fan Law given above, *i.e.*,

$$14.5 \times \left(\frac{460+60}{460+200} \right) = 11.4 \text{ B.H.P.}$$

The final data obtained is therefore:—

Size	No. 80 S.S. Fan
Capacity	30,000 C.F.M.
Temperature	200 degs. F.
Resistance Head	1.5" W.G.
Speed	290 R.P.M.
Power	11.4 B.H.P.
Outlet Velocity	2,180 Ft./min.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

HOW TO SELECT A FAN FROM THE TABLES TO WORK AT ALTITUDES ABOVE SEA LEVEL AT WHICH THE FAN TABLES ARE LISTED.

Example.

Required, an S.S. Type Fan to deliver 20,000 C.F.M. against a resistance head of 1.25" W.G. working at an altitude of 5,000 feet and handling air at a temperature of 60 degs. F. the outlet velocity not exceeding 2,000 feet per minute.

The density of air varies inversely as the absolute temperature and directly as the barometric pressure. For easy and quick working a table is printed on page 97 giving the comparative densities of air at different altitudes.

As in the previous example the first step is to convert the given conditions to the list conditions and then use the same Fan Law as example 1.

From the altitude density tables, the density of air at 5,000 feet = 0.826.

Equivalent pressure at sea level corresponding to 1.25" R.H. at 5,000 feet $= \frac{1.25}{0.826} = 1.515" \text{ R.H.}$

From the Fan Tables on page 20 it will be found that a No. 70 size S.S. Fan will deliver 20,000 C.F.M. against 1.515" R.H. when running at a speed of 292 R.P.M. and taking 7.67 B.H.P.

When handling the lighter air the horse power will be reduced proportionately to the density which $= 7.67 \times 0.826 = 6.34 \text{ B.H.P.}$

The final data obtained is therefore:—

Size	...	...	...	...	...	No. 70 S.S. Fan
Capacity	...	...	...	...	...	20,000 C.F.M.
Altitude	...	...	...	...	...	5,000 feet
Resistance Head	...	...	...	...	...	1.25" W.G.
Speed	...	...	...	...	...	292 R.P.M.
Power	...	...	...	...	...	6.34 B.H.P.
Outlet Velocity	...	...	...	...	...	1,890 feet per minute

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

HOW TO SELECT A FAN WORKING AT OTHER THAN SEA LEVEL AND OTHER THAN STANDARD TEMPERATURE CONDITIONS.

Example.

Required an S.S. Type Fan to deliver 15,000 C.F.M. at a temperature of 150 degs. F. against a resistance head of 0.5" W.G. when working at an altitude of 3,000 feet, the outlet velocity not to exceed 1,500 feet per minute.

The first step is to convert the conditions again to standard fan table conditions.

Assuming the density of air at 60 degs. F. = 1 then density at 150 degs. F. equals

$$1 \times \left(\frac{460+60}{460+150} \right) = 0.854$$

From altitude density tables, density of air at 3,000 feet equals 0.891.

The air density for both temperature and altitude conditions equals:—

$$0.854 \times 0.891 = 0.760$$

The equivalent pressure at 60 degs. F. and sea level equals:—

$$\frac{0.5}{0.760} = 0.658 \text{ R.H.}$$

From the Fan Tables on page 19 it will be found that a No. 70 S.S. Fan will deliver 15,000 C.F.M. against a resistance head of 0.658" W.G. when running at a speed of 198 R.P.M. and taking 2.73 B.H.P.

The actual horse power will be reduced proportionately to the density of the air.

$$\therefore 2.73 \times 0.760 = 2.07$$

The final data obtained is therefore:—

Size	...	...	...	...	...	No. 70 S.S. Fan
Capacity	...	...	...	...	...	15,000 C.F.M.
Temperature	...	...	...	...	...	150 degs. F.
Altitude	...	...	...	...	...	3,000 feet
Speed	...	...	...	...	...	198 R.P.M.
Power	...	...	...	...	...	2.07 B.H.P.
Outlet Velocity	...	...	...	...	...	1,415 feet per minute

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

Alt.
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400

CYCLONE

ALTITUDE-DENSITY TABLE FOR AIR

Altitudes in feet—Standard air at 0 alt. (29.92 in. Bar.)=1.

Alt.	Den.	Bar.	Alt.	Den.	Bar.	Alt.	Den.	Bar.	Alt.	Den.	Bar.
0	1.00	29.92	1500	.944	28.26	3000	.891	26.68	6000	.795	23.79
100	.966	29.81	1600	.941	28.15	3200	.885	26.48	6200	.789	23.61
200	.992	29.70	1700	.937	28.04	3400	.878	26.28	6400	.784	23.43
300	.989	29.58	1800	.933	27.93	3600	.872	26.08	6600	.778	23.26
400	.985	29.47	1900	.930	27.83	3800	.865	25.88	6800	.772	23.08
500	.981	29.36	2000	.926	27.72	4000	.858	25.68	7000	.766	22.90
600	.977	29.25	2100	.923	27.62	4200	.852	25.49	7200	.760	22.73
700	.974	29.14	2200	.919	27.51	4400	.846	25.30	7400	.754	22.56
800	.970	29.02	2300	.916	27.41	4600	.839	25.10	7600	.748	22.38
900	.966	28.91	2400	.912	27.30	4800	.833	24.91	7800	.743	22.21
1000	.962	28.80	2500	.909	27.20	5000	.826	24.72	8000	.737	22.04
1100	.959	28.69	2600	.905	27.09	5200	.820	24.53	8200	.731	21.87
1200	.955	28.58	2700	.902	26.99	5400	.814	24.35	8400	.726	21.70
1300	.952	28.47	2800	.898	26.89	5600	.808	24.16	8600	.720	21.54
1400	.948	28.36	2900	.895	26.78	5800	.802	23.98	8800	.714	21.37

CYCLONE

LAWS APPLYING TO FANS

Of the natural laws applying to all types of fans under list conditions the three following are of first importance:—

- (1) The air capacity varies as the fan speed.
- (2) The pressure varies as the square of fan speed.
- (3) The horse power varies as the cube of fan speed.

Example.

A No. 70 S.S. Cyclone Fan delivers 20,000 C.F.M. against a resistance head of 1" W.G. when running at a speed of 248 R.P.M., the power absorbed being 5.65 B.H.P.

If it is required to increase the volume to 25,000 C.F.M. what will be the speed, resistance head and power?

Using Law (1)

$$\text{Speed} = 248 \times \frac{25,000}{20,000} = 310 \text{ R.P.M.}$$

Using Law (2)

$$\text{Resistance head} = 1 \times \left(\frac{310}{248}\right)^2 = 1.56 \text{ inches}$$

Using Law (3)

$$\text{Horse power} = 5.65 \times \left(\frac{310}{248}\right)^3 = 11.0$$

To find Fan Efficiencies for static and total pressures.

$$\text{Static Efficiency} = \frac{\text{C.F.M.} \times \text{Static pressure in inches W.G.}}{6356 \times \text{Fan H.P.}}$$

$$\text{Total or Mechanical Efficiency} = \frac{\text{C.F.M.} \times \text{Total pressure in inches W.G.}}{6356 \times \text{Fan H.P.}}$$

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

P·B
FANS

P B PADDLE BLADE FANS



Heavy Pattern
with Ring Oiling Bearings.



Light Pattern
with Ball Bearings.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

THE Cyclone Paddle Blade Fan has many uses for which the Multivane Fan is unsuitable. It is unrivalled in the collection of refuse from wood-working machines in joinery works; in dust and smoke exhausting plants, and wherever solid matter is passed through the Fan.

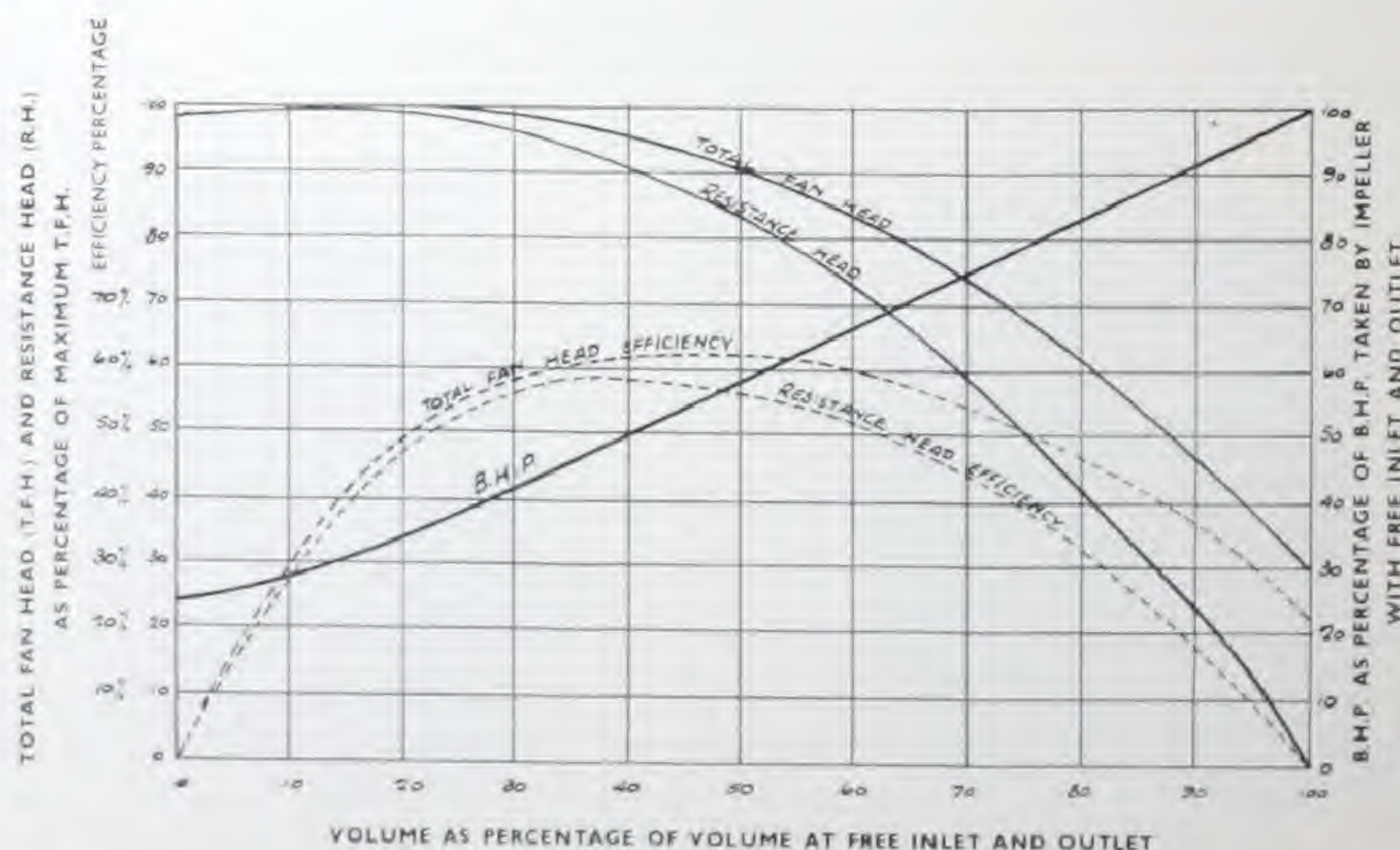
When fitted with water-cooled bearings it is excellent for induced draught for boilers.

The Heavy Pattern types are built of strong steel plate heavily stayed with substantial tees and angles. They are fitted with self-lubricating ring oiling bearings having heavy gun-metal bushes, steel shafts, and perfectly balanced pulleys and runners.

The Light Pattern types have fitted to the reinforced fan side a strong cast-iron bracket which houses the ball bearings. They are suitable for duties up to 3" water gauge.

When these Steel Plate Fans are used to discharge air through trunking with free inlet, that is as Blowers, they should be fitted with a taper inlet piece; and when used as Exhausters sucking air through trunking and discharging freely to atmosphere they should be provided with an evase outlet: by so doing considerable saving in power is effected.

These and many other points in application need careful attention to obtain the best results.



Characteristic Curves derived from tests upon "Cyclone" Paddle Blade Centrifugal Fan with Standard impeller, running at constant speed.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

PADDLE-BL
STANDARD A
BAROMETRIC

Fan Size	Outlet Velocity ft. per min.
4	1455
5	914

Fan Size	Outlet Velocity ft. per min.
4	1745
5	1096

Fan Size	Outlet Velocity ft. per min.
4	2040
5	1280

Fan Size	Outlet Velocity ft. per min.
4	2330
5	1460
6	1022

Fan Size	Outlet Velocity ft. per min.
4	2620
5	1644
6	1150

Fan Size	Outlet Velocity ft. per min.
4	2915
5	1830
6	1280

MATTHEW

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.

BAROMETRIC PRESSURE 30" Hg.

PERFORMANCE TABLES

SINGLE INLET

SINGLE WIDTH FANS

500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
4	1455	1325	1317 15	1545 21	1728 27	1910 34	2060 41	2220 49	2360 56	2490 65	2620 73	2860 93				
5	914	0522	965 135													

600 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
4	1745	1905	1406 2	1607 27	1780 34	1953 41	2105 49	2260 57	2400 65	2525 75	2655 84	2880 111				
5	1096	075	990 17	1180 25	1344 33											

700 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
4	2040	26	1503 25	1700 33	1860 42	2020 5	2165 59	2300 68	2445 76	2575 85	2700 95	2915 122				
5	1280	1025	1020 2	1200 29	1366 38											

800 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
4	2330	34	1600 33	1775 41	1940 51	2090 6	2240 69	2375 79	2490 89	2620 100	2740 111	2965 133				
5	1460	1335	1063 24	1238 34	1386 44											
6	1022	0655	815 22													

900 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
4	2620	43	1720 41	1890 51	2035 6	2180 71	2300 81	2450 92	2570 111	2680 121	2790 131	3000 151				
5	1644	169	1104 29	1270 39	1415 5	1550 61										
6	1150	083	830 25													

1,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
4	2915	532	1840 53	1993 62	2130 72	2270 83	2400 95	2520 106	2638 119	2755 129	2860 143	3075 17				
5	1830	21	1155 34	1310 45	1460 57	1580 7	1700 82	1820 95	1930 109	2030 122	2130 138	2330 167				
6	1280	103	852 38	1000 41	1138 55	1253 69										

P·B FANS

CYCLONE

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

1,250 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
4	3640	.83	2145 .88	2270 1.0	2400 1.11	2520 1.25	2640 1.4	2750 1.53	2860 1.68	2970 1.8	3065 1.96					
5	2285	.327	1290 .51	1422 .64	1550 .79	1670 .93	1793 1.07	1900 1.23	1990 1.38	2095 1.55	2190 1.7	2375 2.03	2535 2.37	2690 2.75	2850 3.13	2990 3.55
6	1600	.16	910 .39	1050 .54	1170 .69	1290 .85	1393 1.02									

1,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
4	4370	1.19		2585 1.55	2700 1.7	2820 1.85	2910 1.95	3015 2.11								
5	2740	.47	1428 .74	1555 .89	1670 1.05	1780 1.23	1890 1.4	1990 1.57	2084 1.75	2200 1.95	2270 2.1	2430 2.5	2590 2.85	2750 3.3	2895 3.7	3030 4.1
6	1920	.23	980 .53	1106 .7	1220 .86	1328 1.04	1435 1.25	1525 1.42								
7	1370	.1175	750 .44	872 .62												

1,750 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
5	3200	.64	1585 1.06	1700 1.21	1800 1.38	1900 1.72	2000 1.8	2095 1.96	2186 2.2	2285 2.4	2365 2.6	2530 3.0	2670 3.5	2815 3.86	2955 4.3	3100 4.75
6	2240	.314	1050 .68	1170 .88	1270 1.08	1383 1.4	1480 1.5	1570 1.72	1656 1.93	1730 2.15	1820 2.37					
7	1600	.16	790 .55	907 .75	1010 .96											

2,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
5	3660	.84		1850 1.7	1948 1.82	2035 2.01	2130 2.24	2205 2.45	2306 2.73	2390 2.94	2475 3.14	2620 3.6	2780 4.1	2910 4.6	3040 5.05	3160 5.5
6	2560	.41	1143 .9	1242 1.15	1345 1.32	1440 1.57	1536 1.8	1620 2.04	1706 2.29	1780 2.52	1857 2.75	2000 3.25	2140 3.8	2280 4.35	2390 4.88	2510 5.5
7	1828	.209	830 .69	943 .91	1047 1.14	1138 1.4	1220 1.65	1300 1.9	1380 2.17	1450 2.44						
8	1412	.125	659 .6													

2,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
5	4575	1.31				2350 3.33	2425 3.6	2490 3.8	2560 4.0	2640 4.3	2705 4.6	2840 5.2	2990 5.75	3200 6.3		
6	3200	.64		1412 1.71	1500 1.96	1590 2.23	1663 2.54	1747 2.8	1820 3.1	1890 3.4	1960 3.7	2100 4.3	2225 4.9	2350 5.5	2455 6.15	2565 6.8
7	2280	.325	930 1.03	1030 1.31	1118 1.57	1200 1.87	1280 2.14	1366 2.48	1430 2.8	1503 3.1	1565 3.4	1700 4.1	1820 4.75			
8	1766	.195	715 .84	813 1.11	903 1.41	985 1.72										
9	1405	.1235	583 .73	680 1.05												

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

PADDLE-BL
STANDARD AI
BAROMETRIC

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.
5	5480	1.8
6	3840	.9
7	2740	.4
8	2120	.2
9	1685	.1
10	1435	.1

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.
6	4480	1.2
7	3200	.6
8	2475	.3
9	1970	.2
10	1600	.1

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.
6	5120	1.4
7	3650	.7
8	2825	.4
9	2245	.3
10	1827	.2

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.
6	5750	2.0
7	4115	1.0
8	3180	.5
9	2530	.3
10	2055	.2
11	1708	.1

MATTHEW

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

3,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
5	5480	1.88						2800 5.7	2864 6.0	2905 6.2	2970 6.4	3110 7.1	3220 7.75			
6	3840	.922		1587 2.62	1670 2.9	1743 3.15	1818 3.54	1890 3.8	1960 4.2	2020 4.5	2085 4.8	2205 5.6	2330 6.2	2440 6.85	2555 7.65	2655 8.35
7	2740	.47	1035 1.52	1120 1.8	1202 2.12	1283 2.45	1355 2.83	1428 3.2	1500 3.5	1570 3.85	1630 4.25	1742 5.0	1850 5.7	1965 6.5		
8	2120	.282	777 1.15	863 1.47	950 1.81	1028 2.16	1105 2.55	1166 2.9	1230 3.3	1297 3.65	1357 4.1					
9	1685	.178	622 .97	715 1.31	792 1.67	865 2.05										
10	1435	.129	522 .88													

3,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
6	4480	1.26				1910 4.5	1980 4.75	2050 5.15	2100 5.45	2175 5.9	2235 6.25	2345 7.0	2465 7.9	2550 8.7	2660 9.5	2765 10.2
7	3200	.64		1230 2.5	1300 2.82	1380 3.2	1445 3.65	1510 4.0	1580 4.4	1632 4.76	1700 5.2	1812 6.0	1918 6.9	2020 7.8	2115 8.7	2215 9.5
8	2475	.383	845 1.53	927 1.9	1000 2.3	1072 2.7	1142 3.15	1210 3.5	1276 4.0	1335 4.4	1390 4.82					
9	1970	.243	663 1.25	747 1.65	824 2.04	895 2.5										
10	1600	.16	547 1.1	635 1.5												

4,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
6	5120	1.64					2150 6.5	2225 6.9	2274 7.2	2330 7.6	2375 7.9	2485 7.9	2590 9.8	2700 10.6	2800 11.6	2880 12.5
7	3650	.835			1413 3.75	1478 4.15	1540 4.6	1606 5.0	1660 5.5	1718 5.9	1780 6.35	1885 7.3	1984 8.15	2090 9.2	2190 10.2	2275 11.1
8	2825	.5	920 2.09	995 2.5	1065 2.86	1130 3.3	1197 3.78	1260 4.3	1316 4.75	1376 5.15	1430 5.7					
9	2245	.316	708 1.57	786 2.05	858 2.5	927 2.96										
10	1827	.208	574 1.34	654 1.8												

4,500 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
6	5750	2.07								2500 9.8	2560 10.1	2655 11.2	2750 12.0	2840 12.85	2940 14.2	3020 15.0
7	4115	1.06				1580 5.37	1645 5.75	1703 6.3	1760 6.75	1810 7.25	1870 7.8	1960 8.65	2065 9.8	2150 10.75	2250 11.75	2340 12.9
8	3180	.632		1065 3.15	1128 3.6	1195 4.05	1260 4.6	1310 5.05	1366 5.6	1426 6.2	1504 6.9	1590 7.75	1678 8.85	1760 10.0	1850 11.1	1930 12.2
9	2530	.402	763 2.02	832 2.5	900 3.01	960 3.5	1023 4.05	1085 4.55	1136 5.1	1187 5.65	1237 6.2	1335 7.35	1430 8.55			
10	2055	.264	608 1.65	686 2.2	752 2.67	813 3.25										
11	1708	.183	509 1.45	584 2.0												

P·B FANS

CYCLONE

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

5,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
6	6400	2.56								2670 12.4	2720 13.1	2825 13.65	2900 14.7	3000 15.7	3080 16.9	3170 17.9
7	4570	1.3				1690 6.77	1750 7.25	1795 7.53	1860 8.27	1908 8.83	1955 9.25	2060 10.5	2140 11.5	2230 12.55	2310 13.6	2400 15.0
8	3530	.78		1138 4.0	1200 4.42	1258 4.95	1315 5.48	1375 6.1	1434 6.62	1482 7.2	1524 7.85	1616 8.9	1720 10.1	1800 11.2	1890 12.5	1970 13.8
9	2810	.494	810 2.57	875 3.02	946 3.57	1007 4.14	1062 4.72	1112 5.3	1166 5.82	1220 6.43	1270 7.08	1363 8.27	1450 9.6	1530 10.83	1615 12.2	1700 13.5
10	2285	.327	640 2.01	712 2.56	777 3.14	835 3.67	898 4.28	950 4.91	996 5.52	1050 6.15	1083 6.77	1182 8.13	1263 9.5			
11	1897	.225	532 1.73	600 2.27	666 2.85	725 3.48	780 4.13	830 4.75	882 5.42	932 6.1						
12	1600	.16	455 1.55	525 2.14	586 2.76	644 3.39	700 4.07									
13	1368	.117	398 1.43	468 2.07	528 2.71											
14	1163	.085	358 1.38	425 2.03												

6,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
6	7680	3.7												3240 23.2	3415 24.2	3490 25.1
7	5480	1.88								2120 12.85	2160 13.1	2240 14.5	2325 15.7	2415 17.2	2490 18.5	2580 19.8
8	4240	1.125				1405 7.25	1453 7.75	1495 8.35	1556 9.0	1600 9.65	1643 10.45	1735 11.8	1815 13.2	1900 14.5	1973 16.0	2060 17.25
9	3370	.71		980 4.5	1035 5.03	1090 5.62	1145 6.35	1193 6.95	1244 7.7	1293 8.5	1334 9.05	1425 10.5	1510 12.0	1583 13.4	1660 14.9	1735 16.4
10	2740	.47	715 2.94	780 3.54	837 4.2	893 4.9	943 5.55	1010 6.5	1044 6.92	1088 7.75	1130 8.42	1216 10.0	1297 11.4			
11	2280	.325	578 2.36	645 3.07	703 3.74	760 4.45	813 5.15	860 5.9	906 6.6	950 7.4						
12	1920	.23	490 2.09	553 2.75	610 3.43	663 4.18	718 4.97									
13	1640	.168	423 1.89	488 2.57	542 3.3											
14	1395	.122	375 1.75	436 2.48												

7,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
7	6400	2.56										2460 20.0	2540 21.4	2600 22.6	2685 24.1	2760 25.6
8	4950	1.53					1593 11.0	1665 11.8	1690 12.2	1740 13.0	1780 13.75	1850 15.3	1930 16.9	2005 18.3	2080 20.0	2170 21.6
9	3930	.965			1138 7.1	1180 7.7	1232 8.4	1280 9.2	1328 10.0	1370 10.75	1410 11.5	1490 13.2	1570 14.7	1650 16.3	1728 18.0	1790 19.7
10	3200	.64	791 4.25	853 4.85	905 5.7	950 6.25	1000 7.1	1047 8.0	1096 8.8	1142 9.5	1178 10.4	1263 12.0	1330 13.6	1410 15.5	1470 17.1	1542 19.0
11	2660	.443	637 3.35	697 4.05	748 4.8	800 5.6	850 6.4	894 7.25	942 8.0	982 8.9	1020 9.75	1100 11.5				
12	2240	.314	525 2.75	585 3.5	640 4.0	690 5.1	740 6.0	785 6.85								
13	1915	.229	452 2.45	508 3.2	563 4.0											
14	1627	.166	394 2.2	453 3.0												

8,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
7	7300	3.33												2830 30.5	2880 31.4	2970 33.5
8	5650	2.0							1840 16.75	1880 17.4	1916 18.0	1993 19.8	2060 21.4	2125 22.8	2200 25.2	2270 26.5
9	4490	1.26				1290 10.5	1340 11.1	1374 11.75	1416 12.6	1460 13.5	1493 14.25	1575 16.25	1645 18.0	1715 20.0	1786 21.75	1850 23.7
10	3655	.835		927 6.75	970 7.3	1019 8.1	1067 8.9	1112 10.0	1154 10.7	1190 11.8	1238 12.6	1306 14.4	1390 16.3	1450 18.25	1528 20.2	1580 22.0
11	3030	.574	694 4.5	750 5.25	808 6.0	845 7.0	890 7.85	933 8.8	976 9.7	1016 10.7	1058 11.6	1128 13.5	1200 15.5	1260 17.3	1337 19.5	1397 21.7
12	2560	.41	570 3.6	620 4.4	677 5.35	725 6.3	767 7.2	813 8.15	852 9.1	890 10.0	930 11.0					
13	2185	.298	481 3.1	535 4.0	586 4.85	635 5.85	680 6.8	720 7.8								
14	1860	.217	415 2.75	472 3.65												

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

**P·B
FANS**

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

9,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET

SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
8	6350	2.525												2265 28.7	2335 30.7	2390 33.0
9	5050	1.595									1584 17.9	1665 20.0	1740 22.0	1806 24.1	1865 26.0	1925 28.25
10	4115	1.06						1180 12.2	1216 13.2	1255 14.1	1292 15.4	1388 17.7	1432 19.4	1505 21.6	1565 23.3	1625 25.5
11	3415	.73			848 7.6	896 8.6	938 9.6	980 10.6	1016 11.5	1058 12.7	1095 13.7	1168 15.7	1235 18.0	1296 20.0	1360 22.3	1420 24.6
12	2875	.517		665 5.6	710 6.5	756 7.7	798 8.5	840 9.6	878 10.7	915 11.6	952 12.75	1020 14.9	1090 17.2			
13	2460	.378	512 3.85	565 4.9	610 5.9	655 6.9	700 7.85	740 8.9	780 10.1							
14	2090	.273	440 3.3	492 4.4	538 5.4											
16	1586	.1575	342 2.8	397 3.9												

10,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
8	7075	3.13									2210 29.1	2280 32.5	2330 33.4	2410 35.9	2469 38.2	2525 39.3
9	5620	1.97					1540 18.2	1572 19.65	1624 21.0	1680 21.42	1690 22.41	1748 24.2	1815 26.2	1870 28.6	1941 30.8	2020 33.5
10	4575	1.31			1125 12.1	1170 13.52	1212 14.05	1245 14.85	1280 16.1	1322 17.0	1350 18.1	1425 20.5	1490 22.5	1550 25.2	1603 27.2	1670 29.7
11	3795	.9			905 9.52	950 10.6	986 11.5	1027 12.5	1064 13.6	1100 15.05	1133 16.02	1205 18.5	1270 20.2	1332 22.8	1392 25.3	1445 27.6
12	3200	.64	653 5.82	700 6.74	750 7.85	795 8.93	831 10.0	872 11.42	910 12.3	945 13.6	978 14.55	1050 16.8	1110 19.3	1170 21.7	1230 24.4	1285 27.1
13	2735	.4675	546 4.9	592 5.74	640 6.98	682 8.02	720 9.24	763 10.38	800 11.6							
14	2325	.3375	463 4.13	510 5.12	558 6.28	602 7.4	642 8.72									
16	1764	.1945	357 3.34	405 4.45	450 5.61	498 6.9										

11,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
9	6180	2.39											1925 31.8	1970 33.78	2040 36.6	2095 38.4
10	5025	1.58					1290 17.5	1318 18.6	1356 19.2	1392 20.5	1428 21.6	1506 24.2	1550 26.85	1613 29.1	1680 31.7	1730 34.6
11	4175	1.09			955 11.9	1002 13.1	1042 13.8	1072 15.3	1114 16.1	1145 17.25	1180 18.8	1248 21.2	1300 23.7	1355 26.1	1430 28.8	1480 31.4
12	3520	.777		746 8.65	790 9.6	830 10.65	870 11.78	906 13.15	944 14.4	975 15.55	1015 16.9	1075 19.6	1139 22.0	1198 24.7	1255 27.3	1308 29.8
13	3010	.567	580 5.95	627 7.0	670 8.14	710 9.4	748 10.58	785 11.85	810 13.18	857 14.4	894 15.7	953 18.55	1018 21.2	1070 23.8	1122 26.8	
14	2560	.41	490 4.94	537 6.03	580 7.35	620 8.64	660 9.78	697 11.0	732 12.6	764 13.65						
16	1940	.235	372 3.84	419 5.2	462 6.28	503 7.64	540 9.1									
18	1545	.1495	281 3.39													

12,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
10	5490	1.89										1558 28.3	1620 31.0	1673 33.5	1730 36.2	1795 39.3
11	4560	1.3							1162 19.1	1192 20.2	1230 21.9	1293 24.6	1348 27.0	1410 30.2	1467 32.7	1516 35.6
12	3840	.92				872 12.7	910 14.0	946 15.3	980 16.6	1015 17.8	1043 19.2	1106 22.2	1165 24.9	1229 27.7	1277 30.6	1328 33.4
13	3290	.678		660 8.6	700 9.7	740 11.0	778 12.3	812 13.75	850 15.1	880 16.3	915 17.75	975 20.6	1032 23.6	1085 26.5	1140 29.5	1192 32.5
14	2793	.488	519 6.1	560 7.25	600 8.5	647 10.0	679 11.3	715 12.7	750 14.0	785 15.4	816 17.0	875 19.8	930 22.7			
16	2120	.282	387 4.5	433 5.9	475 7.25	515 8.65	550 10.1	583 11.6								
18	1685	.178	311 3.85	358 5.25												

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

P·B
FANS

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

17,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
11	6450	2.6												1652 54.2	1690 57.15	1730 60.7
12	5440	1.85								1212 34.3	1237 36.1	1285 39.0	1338 42.5	1386 47.5	1430 50.6	1480 54.5
13	4650	1.35				894 22.2	942 24.3	964 25.6	988 27.4	1015 28.9	1046 31.1	1090 34.8	1145 38.5	1210 42.8	1245 46.2	1292 50.4
14	3955	.98			733 17.5	764 18.6	797 20.5	824 22.2	854 24.0	886 26.1	907 27.8	958 32.0	1009 35.6	1060 39.6	1108 43.7	1153 47.7
16	3000	.563		514 11.1	548 12.75	582 14.8	613 16.7	642 18.7	673 20.5	696 22.2	724 24.3	776 28.6	826 32.8	873 37.0	915 41.4	960 46.0
18	2390	.3575	366 7.2	405 8.9	438 10.9	471 12.7	505 14.75	531 16.9	561 18.9	586 20.7	612 23.0					
20	1942	.2365	295 5.95	334 7.95	371 9.9	400 11.8										
22	1613	.163	248 5.3	287 7.28												

18,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
12	5763	2.08										1362 44.7	1373 48.3	1400 51.2	1467 56.5	1536 60.2
13	4925	1.515					972 28.3	995 29.1	1024 30.6	1050 32.6	1075 34.5	1152 38.6	1180 43.2	1225 46.9	1266 50.8	1325 54.4
14	4180	1.095			750 18.9	792 21.4	823 22.9	850 24.7	876 26.6	904 28.9	930 30.8	985 34.6	1032 39.6	1075 42.5	1125 47.2	1170 51.45
16	3180	.632	494 10.5	535 12.5	565 14.3	597 16.1	628 18.8	659 20.2	684 22.6	712 24.5	736 26.2	800 30.9	837 35.4	880 39.7	924 43.9	962 48.8
18	2530	.4	378 8.1	416 10.0	450 11.9	482 14.3	513 16.0	534 17.9	568 20.6	594 22.5	619 24.8	664 29.25	715 34.2			
20	2055	.264	305 6.6	341 8.65	379 10.7											
22	1708	.1825	254 5.8													

19,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
12	6080	2.32													1503 61.0	1550 66.5
13	5200	1.69										1160 42.7	1200 46.3	1250 50.8	1290 54.8	1340 60.0
14	4420	1.22							900 29.5	930 31.6	960 34.0	1002 38.0	1053 42.2	1098 46.75	1140 51.2	1185 55.3
16	3355	.704		552 14.2	582 15.9	613 18.0	645 20.1	672 22.2	700 24.4	723 26.6	754 28.7	803 33.2	845 37.4	890 42.25	935 47.2	973 52.0
18	2670	.447	392 9.1	427 10.9	463 13.1	492 15.25	520 17.6	550 19.7	576 21.7	603 24.2	625 26.6	670 31.1	720 36.0	761 41.2		
20	2170	.295	312 7.3	350 9.5	382 11.6	413 13.7	443 16.1	468 18.5	494 20.8	520 23.2						
22	1803	.203	260 6.3	296 8.6												

20,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
13	5475	1.875											1230 50.5	1280 56.0	1325 60.2	1360 64.25
14	4650	1.35							930 33.1	955 34.9	980 37.0	1030 42.0	1070 45.8	1117 50.25	1160 55.5	1200 60.0
16	3530	.78			604 17.9	630 19.7	660 21.9	690 24.2	718 26.5	742 28.8	765 31.1	813 35.6	860 40.5	905 45.25	945 50.0	986 55.0
18	2808	.494	405 10.3	440 12.1	472 14.25	502 16.5	528 18.8	562 21.4	584 23.3	610 25.7	635 28.3	682 33.1	725 38.3	766 43.5		
20	2285	.327	324 8.2	355 10.25	390 12.6	418 14.8	448 17.1	475 19.7	500 22.0	524 24.6	548 27.1					
22	1900	.226	266 6.9	300 9.15												

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

P·B FANS

CYCLONE

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

21,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12	6725	2.825																											1640	77.6
13	5750	2.07																			1215	50.8	1265	55.0	1300	60.0	1350	66.0	1395	69.4
14	4880	1.42																			1050	45.0	1080	48.7	1140	55.0	1180	59.4	1240	64.6
16	3707	.86																			824	38.0	870	42.0	914	47.9	957	53.0	993	57.8
18	2950	.545	414	11.4	448	13.0	483	15.5	513	18.0	541	20.2	567	22.6	592	24.9	620	27.5	644	30.0	686	35.0	733	40.6	775	45.5	814	51.2		
20	2400	.36	329	8.7	364	11.0	396	13.5	424	15.9	453	18.3	481	21.0	504	23.4	528	26.0	550	28.5	598	34.1								
22	1993	.249	272	7.5	305	9.9	338	12.25	367	14.7	393	17.4	419	19.9	444	22.7														

22,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13	6020	2.27																											1422	76.0
14	5120	1.64																			1078	49.4	1115	53.8	1160	59.0	1200	63.5	1246	69.2
16	3880	.94																			840	41.5	882	46.1	928	51.2	972	56.5	1010	62.3
18	3090	.598																			695	37.0	740	42.8	775	48.0	816	53.7	853	59.7
20	2515	.395	340	9.75	374	12.1	403	14.6	432	16.9	460	19.6	485	22.0	510	24.7	534	27.5	557	30.3	600	35.8								
22	2085	.272	278	8.2	313	10.6	342	13.0	373	15.7																				
24	1760	.194	236	7.2	270	9.8																								

23,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13	6300	2.48																											1450	81.25
14	5350	1.79																			1100	53.5	1138	57.5	1182	63.5	1228	68.3	1265	73.8
16	4060	1.03																			858	44.25	895	49.6	937	54.5	978	59.7	1018	65.8
18	3230	.652																			706	39.5	750	45.2	783	50.8	822	56.5	860	62.3
20	2630	.4425	350	11.0	382	13.1	410	15.7	440	18.25	468	20.8	492	23.4	518	26.3	543	29.3	563	32.0	603	37.7								
22	2180	.2975	284	8.8	318	11.4	346	13.9	375	16.6	402	19.5	427	22.4																
24	1840	.212	240	7.8	273	10.3																								

24,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH		1½" RH		2" RH		2½" RH		3" RH		3½" RH		4" RH		4½" RH		5" RH		6" RH		7" RH		8" RH		9" RH		10" RH	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13	6570	2.7																											1440	82.8
14	5580	1.95																			1120	57.25	1165	62.8	1208	68.5	1245	73.75	1288	79.5
16	4230	1.12																			868	47.2	910	52.8	953	58.5	990	64.0	1030	69.2
18	3370	.71																			713	41.8	750	47.5	792	53.4	830	59.5	867	65.5
20	2745	.472	360	11.8	390	14.1	418	16.75	446	19.6	473	22.4	498	25.0	522	27.7	545	30.9	570	33.6	610	39.7								
22	2275	.323	291	9.6	322	12.2	352	15.1	380	17.8	410	20.6	430	23.6																
24	1920	.23	245	8.4	276	11.0	308	13.8	332	16.7																				
26	1640	.168	212	7.6																										

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

P·B
FANS

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

25,000 C.F.M.

PERFORMANCE TABLES

SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
13	6840	2.925													1470 88.4	1505 93.5
14	5820	2.12									1100 56.8	1148 62.0	1182 67.0	1257 72.2	1270 78.5	1310 84.5
16	4420	1.22					744 33.7	765 36.7	794 39.2	816 41.5	835 43.2	880 50.2	926 56.1	964 62.3	1000 67.3	1037 71.4
18	3510	.77		494 19.3	528 21.8	558 24.5	583 27.1	602 30.2	632 32.7	653 35.7	678 38.5	721 44.2	763 50.0	803 56.1	835 62.0	872 67.7
20	2855	.51	367 13.1	398 15.3	425 17.9	453 20.6	478 24.6	496 26.5	526 29.1	550 32.1	572 35.4	613 41.0	660 47.4			
22	2370	.352	298 10.4	328 13.1	357 15.9	383 18.7	410 21.8	430 24.6	456 27.6	479 30.4						
24	2000	.25	249 8.9	282 11.8	310 14.6	337 17.5										
26	1710	.183	215 8.1	250 10.8												

26,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
14	6500	2.64								1120 61.3	1143 63.8	1178 68.2	1236 73.4	1260 77.9	1290 83.5	1360 90.6
16	4590	1.32				736 35.2	763 37.2	786 39.7	808 41.8	832 44.8	854 47.5	900 54.5	936 59.6	979 65.4	1011 72.1	1050 77.0
18	3652	.79		517 21.9	544 23.4	565 26.2	593 28.8	617 31.8	640 34.8	670 38.3	687 40.8	727 46.7	770 53.0	806 59.5	843 65.6	883 72.3
20	2972	.552	374 14.1	408 16.6	436 19.2	462 22.8	488 25.0	508 28.0	532 30.8	560 34.7	580 37.2	620 43.8	659 50.2	696 56.4	729 63.4	765 70.4
22	2468	.382	304 11.1	334 13.9	363 16.7	389 20.0	414 22.7	440 26.0	462 29.2	486 32.3	505 35.5	544 42.2				
24	2080	.27	255 9.6	285 12.5	316 15.6	340 18.6	362 21.7	387 25.1	408 28.2	433 31.7						
26	1779	.198	218 8.5													

27,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
14	6280	2.47												1276 84.8	1314 89.8	1350 96.5
16	4770	1.42						806 42.4	826 45.2	850 49.0	872 51.0	915 57.8	954 63.25	993 69.25	1029 76.4	1062 81.5
18	3790	.9		527 23.1	556 26.1	580 28.3	605 31.8	629 34.6	652 37.7	675 40.2	698 43.3	738 49.9	778 56.0	818 61.6	852 68.2	885 75.0
20	3090	.597	388 15.15	394 18.15	444 20.63	470 23.6	495 26.8	517 29.7	540 32.6	565 36.0	586 39.3	628 46.3	666 52.2	698 59.0	735 65.8	768 73.1
22	2560	.41	312 12.1	342 14.95	369 17.9	396 21.2	420 24.0	444 27.0	466 30.8	486 33.5	508 37.2	549 43.9	584 51.25			
24	2160	.292	259 10.1	289 13.25	317 16.3	343 19.3	367 22.7	389 26.25	410 29.2	433 32.9						
26	1847	.213	222 9.04	238 12.1	279 15.6	308 18.6										

28,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
14	6515	2.65												1305 90.0	1341 96.5	1380 103.5
16	4940	1.53									888 55.0	926 61.4	968 68.5	1010 74.0	1041 79.1	1076 86.3
18	3933	.967			570 28.4	592 30.6	616 33.8	640 36.7	662 40.0	685 43.0	705 45.8	748 52.8	785 58.6	826 65.0	861 72.0	899 78.6
20	3200	.64	395 16.3	425 19.4	453 22.0	475 25.0	502 28.7	524 31.4	548 35.2	572 38.0	590 40.6	635 48.0	670 55.0	704 61.6	738 68.2	775 76.0
22	2655	.442	318 13.3	347 16.2	375 19.5	398 22.0	426 25.9	449 29.0	472 32.0	492 35.3	513 38.8	554 46.0	588 53.0			
24	2240	.314	262 11.0	293 14.0	318 17.3	348 20.4	371 24.0	393 27.3	414 30.6	435 34.0						
26	1914	.229	225 9.8	255 12.7												

MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

P·B FANS

CYCLONE

PADDLE-BLADE FANS

STANDARD AIR 60° F. 70% REL. HUM.
BAROMETRIC PRESSURE 30" Hg.

29,000 C.F.M.

PERFORMANCE TABLES

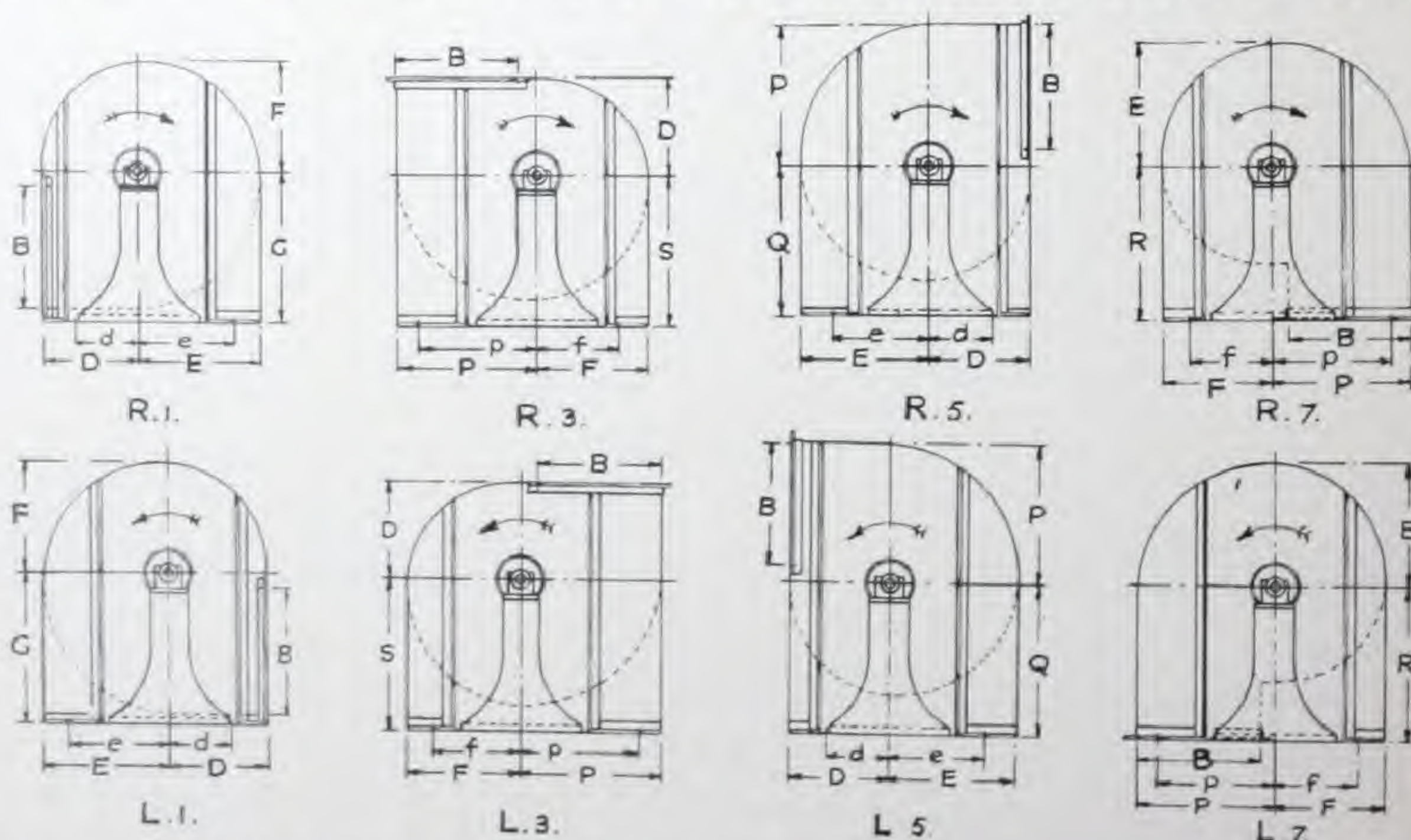
SINGLE INLET
SINGLE WIDTH FANS

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
14	6750	2.85													1365	102.5
16	5120	1.64													1052	84.5
18	4073	1.039													870	75.5
20	3314	.688													745	72.0
22	2750	.473	325	14.5	354	17.1	380	20.2	405	23.5	430	27.0	453	30.1	474	33.5
24	2320	.337	268	11.7	299	15.0	325	18.2	350	21.5	374	24.8	397	28.5		
26	1980	.245	229	10.25	258	13.7										
28	1686	.178	200	9.3												

30,000 C.F.M.

Fan Size	Outlet Velocity ft. per min.	Velocity Head inches W.G.	1" RH	1½" RH	2" RH	2½" RH	3" RH	3½" RH	4" RH	4½" RH	5" RH	6" RH	7" RH	8" RH	9" RH	10" RH
			RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
14	6977	3.04														1423
16	5300	1.755														1106
18	4215	1.11														910
20	3430	.736														770
22	2847	.508	332	15.5	360	18.4	388	21.5	413	25.0	437	28.5	458	32.0	478	35.0
24	2400	.36	274	12.6	303	15.7	331	19.5	354	22.6	378	26.0	399	29.5		
26	2050	.263	233	10.8	261	14.2	287	18.0								
28	1743	.19	203	9.9												

DIAGRAMS SHEWING DIRECTIONS OF ROTATION AND ANGLES OF DISCHARGE.



MATTHEWS & YATES LIMITED, ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

TABLES OF DIMENSIONS IN INCHES.

HEAVY PATTERN.

Size No.	Inlet	Outlet		D	E	F	G	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	JJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TU	TV	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YY	YZ	ZA	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZI	ZJ	ZK	ZL	ZM	ZN	ZO	ZP	ZQ	ZR	ZS	ZT	ZU	ZV	ZW	ZX	ZY	ZZ	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	JJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TU	TV	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YY	YZ	ZA	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZI	ZJ	ZK
----------	-------	--------	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

CYCLONE

PRESSURE BLOWER AND EXHAUSTER

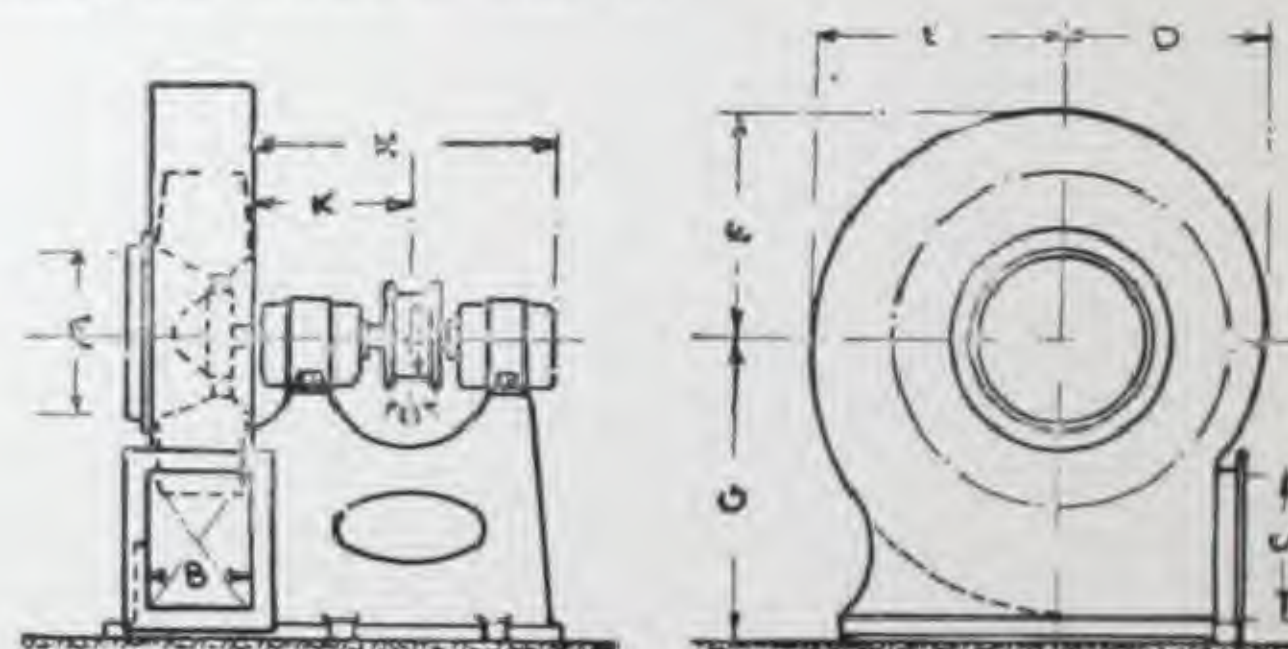
FOR FORGES, CUPOLAS, GAS PLANTS, ETC.

THIS particular Fan has been specially designed for all purposes where a small volume at a high pressure is required.

The Casing is built entirely of mild steel, with angle iron stiffener at base, and great care is taken in the construction to ensure smooth running at the high speeds necessary to give the required output.

The Bearings are also well adapted for their work, being of the self-aligning, babbitted, ring-oiling type.

A modified arrangement of this Fan is used for exhausting gas in conjunction with Gas Producing Plants, when the Inlet and Outlet are fitted with drilled flanges to facilitate the attachment of gas pipes, and a gun-metal stuffing gland is fixed to the side of the casing where the shaft passes through, so as to prevent the escape of gas. They can be arranged with pulley for belt driving or fitted with direct coupled electric motor.



DIMENSIONS IN INCHES

Size	A	B	C	D	E	F	G	H	K	L	M
3	4½	3	4	6	7	6½	8½	13½	6½	3	2
4	6	4	5	7½	9½	8½	11½	13½	6½	3	2
5	7½	5	6½	9½	11½	10½	13½	16½	8½	4	2½
6	9	6	7½	11½	13½	12½	16½	16½	8½	5	3
7	10½	7	8½	13½	16½	14½	19½	19½	9½	6	3½
8	12	8	10	14½	18½	16½	21½	20	10½	7	4
10	14	10	12½	19	23	21	28	24	12	8	4½
12	18	12	15	22½	27½	25½	33½	33½	17	10	6

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

ELECTRIC FORGE BLOWER

THIS combination has been specially designed for the purpose of supplying the blast for individual Smiths' Fires and for similar purposes where a high pressure is necessary such as small Furnaces, etc. It consists of a split cast-iron casing to one side of which is bolted, by means of a special end cover, the electric motor. The impeller is **cast in Aluminium** and is keyed direct on to the motor spindle which projects into the casing. The blower is designed to give **8" water gauge** pressure at the low speed 2,750 R.p.m. and is supplied for either **direct** or **alternating** current. Two sizes of motors are fitted, the smaller when the blower is for use for a $1\frac{1}{4}$ " diameter tuyere (which is the most common) and the larger when it is for use for $1\frac{1}{2}$ " to 2" diameter tuyeres.

In all cases the motors are **totally enclosed** and run on **ball bearings**, therefore requiring the minimum of attention.

The blast can be controlled if desired in the case of D.C. machines, by a regulating switch instead of by the usual valve, which is, of course, indispensable to the A.C. machines.

When ordering please state size of Tuyere and give particulars of current supply.

Special Features:—

Low Running Cost.

Absolute reliability.

Requires minimum of attention.

Will run continuously.



Diameter of Tuyere
 $1\frac{1}{4}$ "

Power required
450 watts.

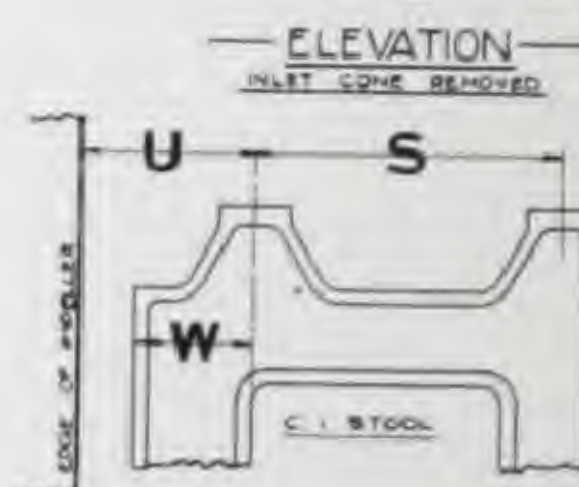
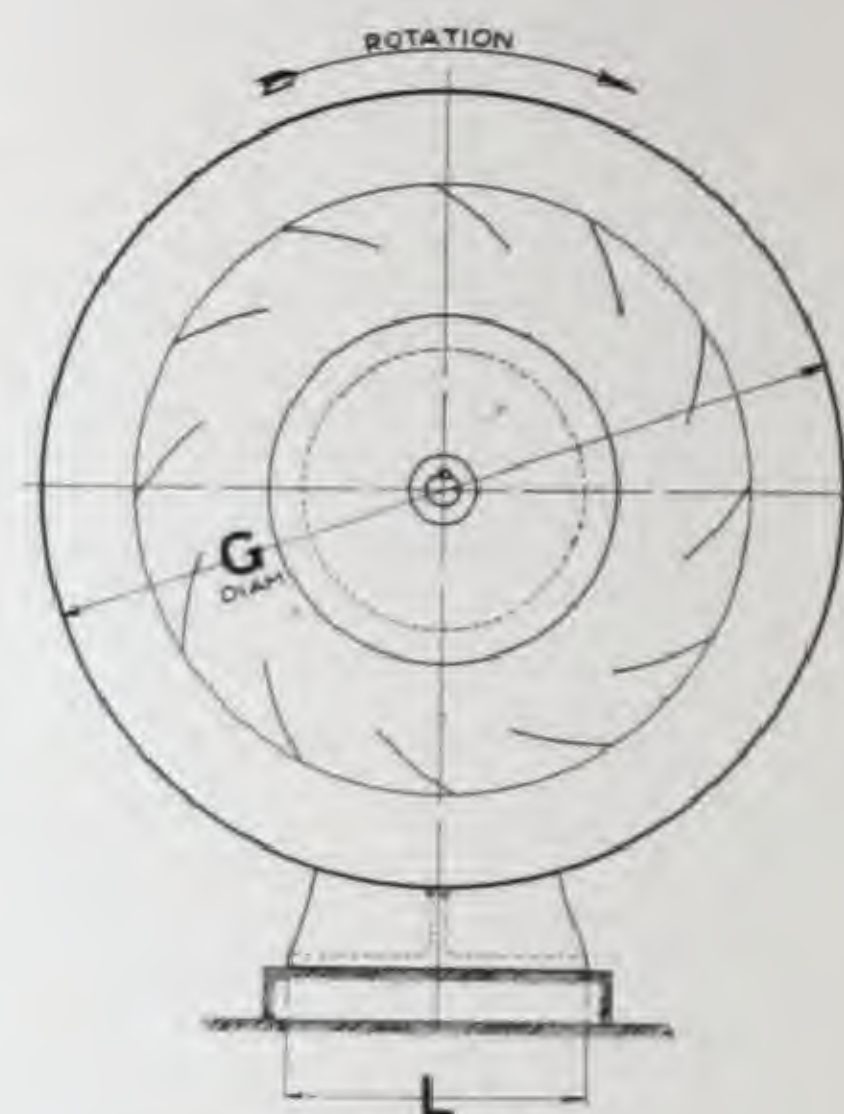
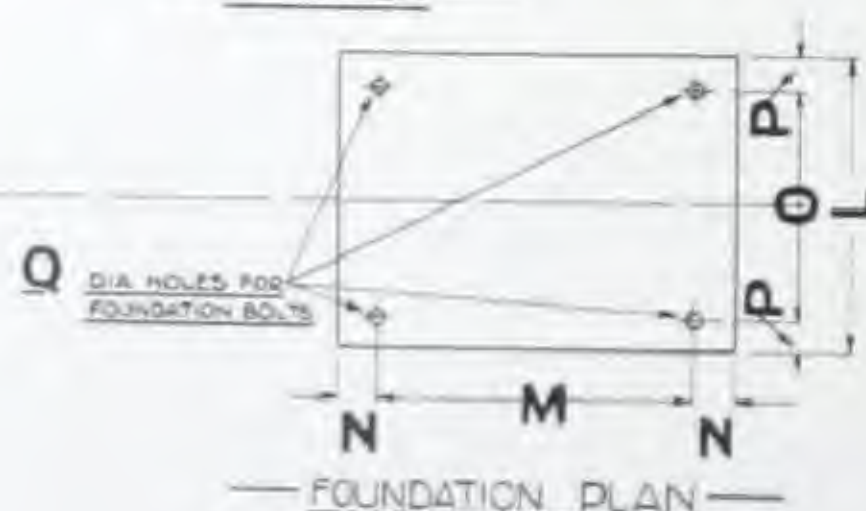
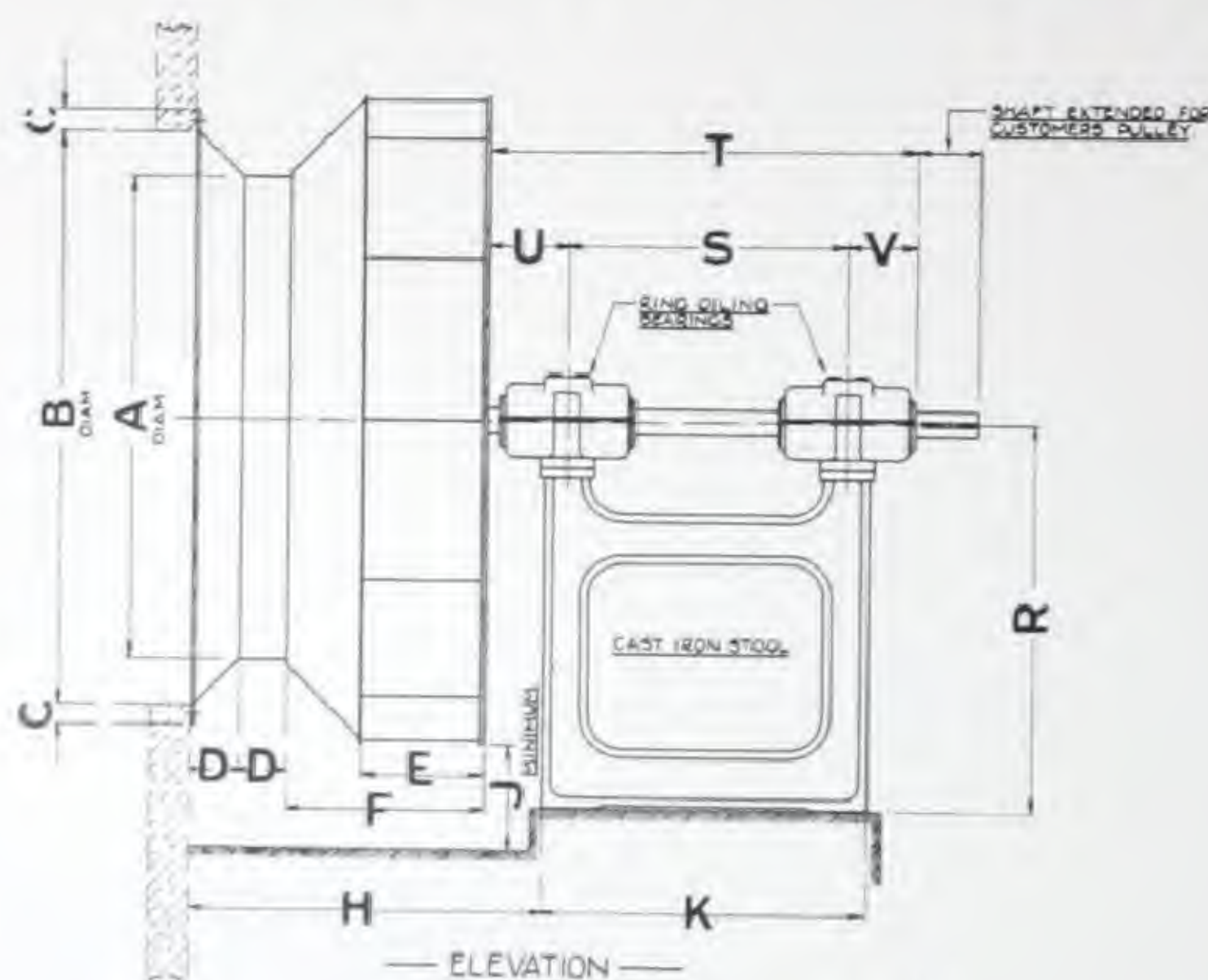
Diameter of Tuyere
 $1\frac{1}{2}$ " to 2"

Power required
650/1,150 watts.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

C.B. CENTRIFUGAL FANS—OPEN TYPE



This detail applies on Sizes 12" to 21" only.
Dimension **W** = 3 ⁹/₁₆" for 12" Fans.
Dimension **W** = 4 ¹/₂" for 15", 18" and 21" Fans.

DIMENSIONS IN INCHES

Fan Size	A	B	C	D	E	F	G	H	J Min.	K	L	M	N	O	P	Q	R	S	T	U	V
12"	12	14 ¹ / ₂	1	1 ¹ / ₂	3 ¹ / ₂	5	16 ¹ / ₂	8 ¹ / ₂	3	16	10	12	2	7	1 ¹ / ₂	1	11 ¹ / ₂	11 ¹ / ₂	19 ¹ / ₂	4 ¹ / ₂	3 ¹ / ₂
15"	15	18	1	1 ¹ / ₂	3 ¹ / ₂	6 ¹ / ₂	20 ¹ / ₂	10 ¹ / ₂	3	19	12	15	2	9	1 ¹ / ₂	1	13 ¹ / ₂	13 ¹ / ₂	22 ¹ / ₂	5 ¹ / ₂	3 ¹ / ₂
18"	18	21 ¹ / ₂	1	1 ¹ / ₂	4 ¹ / ₂	7 ¹ / ₂	24 ¹ / ₂	12 ¹ / ₂	4	19	12	15	2	9	1 ¹ / ₂	1	13 ¹ / ₂	13 ¹ / ₂	22 ¹ / ₂	5 ¹ / ₂	3 ¹ / ₂
21"	21	25 ¹ / ₂	1 ¹ / ₂	2 ¹ / ₂	5 ¹ / ₂	8 ¹ / ₂	28 ¹ / ₂	14 ¹ / ₂	4	19	12	15	2	9	1 ¹ / ₂	1	16 ¹ / ₂	13 ¹ / ₂	23 ¹ / ₂	5 ¹ / ₂	4 ¹ / ₂
24"	24	28 ¹ / ₂	1 ¹ / ₂	2 ¹ / ₂	6 ¹ / ₂	9 ¹ / ₂	32 ¹ / ₂	18 ¹ / ₂	4	20	15	16	2	12	1 ¹ / ₂	1	19 ¹ / ₂	16 ¹ / ₂	25 ¹ / ₂	5	4 ¹ / ₂
27"	27	32 ¹ / ₂	1 ¹ / ₂	2 ¹ / ₂	6 ¹ / ₂	11 ¹ / ₂	36 ¹ / ₂	20 ¹ / ₂	6	20	15	16	2	12	1 ¹ / ₂	1	21 ¹ / ₂	16 ¹ / ₂	25 ¹ / ₂	5	4 ¹ / ₂
30"	30	36	1 ¹ / ₂	3	7 ¹ / ₂	12 ¹ / ₂	40 ¹ / ₂	22 ¹ / ₂	6	21	15	17	2	12	1 ¹ / ₂	1	24 ¹ / ₂	17 ¹ / ₂	28 ¹ / ₂	5 ¹ / ₂	5
36"	36	43 ¹ / ₂	1 ¹ / ₂	3 ¹ / ₂	9 ¹ / ₂	14 ¹ / ₂	48 ¹ / ₂	26 ¹ / ₂	9	24	18	19	2 ¹ / ₂	14	2	1	29 ¹ / ₂	20 ¹ / ₂	31 ¹ / ₂	5 ¹ / ₂	5
42"	42	50 ¹ / ₂	1 ¹ / ₂	4 ¹ / ₂	10 ¹ / ₂	17 ¹ / ₂	56 ¹ / ₂	31	12	30	24	23	3 ¹ / ₂	19	2 ¹ / ₂	1	34 ¹ / ₂	26 ¹ / ₂	39 ¹ / ₂	7 ¹ / ₂	6 ¹ / ₂
48"	48	57 ¹ / ₂	1 ¹ / ₂	4 ¹ / ₂	12 ¹ / ₂	19 ¹ / ₂	65 ¹ / ₂	34 ¹ / ₂	12	30	24	23	3 ¹ / ₂	19	2 ¹ / ₂	1	37 ¹ / ₂	26 ¹ / ₂	39 ¹ / ₂	7 ¹ / ₂	6 ¹ / ₂
54"	54	64 ¹ / ₂	1 ¹ / ₂	5 ¹ / ₂	13 ¹ / ₂	22 ¹ / ₂	73 ¹ / ₂	39 ¹ / ₂	15	30	24	23	3 ¹ / ₂	19	2 ¹ / ₂	1	37 ¹ / ₂	26 ¹ / ₂	41 ¹ / ₂	8 ¹ / ₂	6 ¹ / ₂
60"	60	72	1 ¹ / ₂	6	15 ¹ / ₂	24 ¹ / ₂	81 ¹ / ₂	42 ¹ / ₂	15	42	36	34	4	28	4	1 ¹ / ₂	41 ¹ / ₂	35 ¹ / ₂	50 ¹ / ₂	8 ¹ / ₂	6 ¹ / ₂

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

OPEN TYPE C.B. CENTRIFUGAL FANS

THE Open Type Cyclone C.B. Centrifugal Fan is designed to move large volumes of air against low resistance heads, and is used chiefly for Extract Ventilating Systems when the resistance offered by the ductwork is too high to use a Propeller Fan and maintain silent operation.

These Fans are usually arranged for vee belt driving, but can be adapted for direct coupling to Electric Motors.

The dimensioned illustration gives a standard range of Fans as supplied for vee belt driving.

Each equipment comprises a Cyclone C.B. Impeller, which has a non-overloading characteristic, overhung on a solid mild steel shaft revolving in two Cyclone Standard babbitted inner sleeve ring oiling bearings, supported on a heavy cast iron stool. The shaft is keywayed to receive a suitable driving pulley. An inlet cone is provided with the fan to couple up to extract opening to give the correct air flow to the Fan Impeller.

These Fans are easily adapted to a Duplex arrangement by having a second impeller on the other end of the shaft.

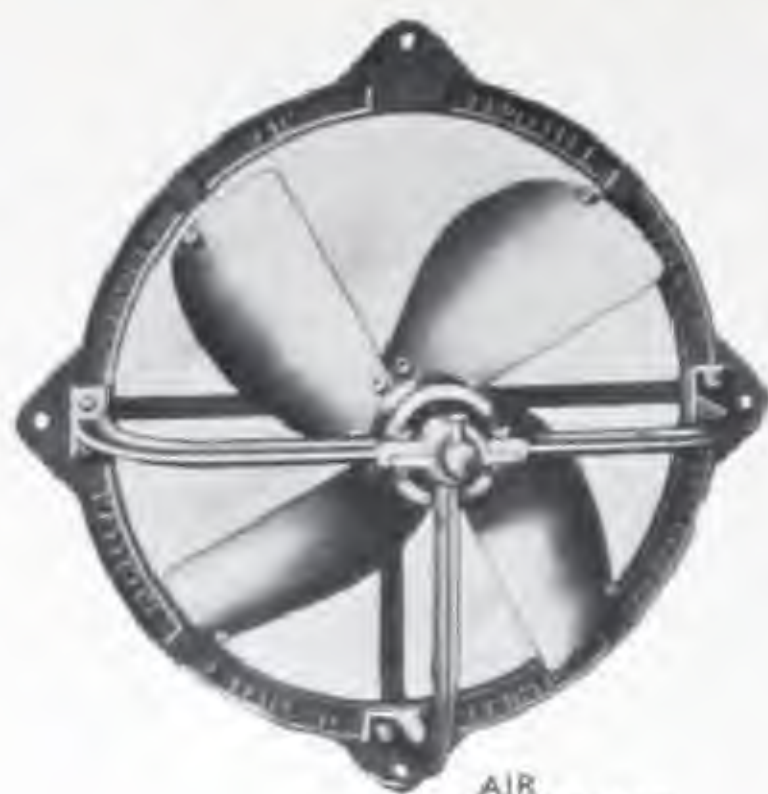
The tables give two duties for each resistance head listed, and are tabulated at the approximate maximum efficiency points. The first duty of each size of Fan at its specified resistance should be taken as the silent running duty.

PERFORMANCE TABLES

Size of Fan	$\frac{1}{4}$ " R.H.			$\frac{3}{8}$ " R.H.			$\frac{1}{2}$ " R.H.		
	C.F.M.	R.P.M.	B.H.P.	C.F.M.	R.P.M.	B.H.P.	C.F.M.	R.P.M.	B.H.P.
9	440	990	0.035	475	1180	0.056	600	1420	0.095
	525	1050	0.046	600	1270	0.079	700	1520	0.122
12	800	750	0.063	950	920	0.112	1100	1060	0.173
	940	820	0.082	1100	970	0.145	1350	1150	0.236
15	1250	600	0.1	1450	730	0.172	1700	840	0.27
	1475	650	0.13	1730	790	0.227	2050	920	0.36
18	1750	490	0.138	2070	600	0.245	2450	700	0.385
	2125	535	0.186	2540	660	0.333	2950	760	0.515
21	2350	420	0.185	2750	500	0.324	3200	580	0.51
	2850	460	0.25	3400	560	0.445	4050	660	0.707
24	3100	375	0.244	3600	450	0.424	4500	530	0.71
	3600	405	0.314	4400	485	0.576	5500	580	0.96
27	4100	335	0.322	4800	410	0.565	5800	475	0.92
	4800	390	0.42	5700	435	0.75	6800	520	1.2
30	5000	300	0.392	5800	370	0.685	7000	430	1.1
	5900	325	0.515	6800	400	0.89	8500	460	1.5
36	7000	248	0.55	8200	300	0.97	10000	350	1.57
	8400	270	0.74	10500	330	1.38	11800	380	2.06
42	9200	210	0.73	10650	250	1.26	13000	295	2.04
	11600	235	1.02	13800	280	1.81	16600	335	2.9
48	12000	184	0.95	13900	219	1.65	17000	258	2.67
	15200	205	1.33	18000	245	2.36	21700	293	3.78
54	15200	163	1.2	17600	194	2.08	21500	230	3.38
	19200	183	1.68	22800	218	2.98	27500	260	4.8
60	18800	147	1.48	21600	175	2.55	26500	207	4.16
	23600	165	2.06	28200	196	3.7	33800	235	5.9

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

SOME OTHER CYCLONE PRODUCTIONS



AIR
PROPELLER



HEATER
UNIT



ELECTRIC
FAN



STANDARD
HEATER



AIR WASHER



SEMI-
AUTOMATIC
VISCIOUS FILTER



KILN
ACCELERATOR



CYCLONE
SEPARATOR



OBLIQUE
VISCIOUS
FILTER

MATTHEWS & YATES LIMITED,

SWINTON, MANCHESTER.

CYCLONE

LIST OF SPECIALITIES

CYCLONE Multivane Fans—Back and Forward Curve.

CYCLONE Patent Laminated Fan Casings for Supersilence.

CYCLONE Paddle Blade Fans.

CYCLONE Air Propellers—Belt and Electric.

CYCLONE Copper Gilled-pipe Heaters.

CYCLONE Heater Units (Gilled Copper Tubes).

CYCLONE Viscous Air Filters.

CYCLONE Air Washers (Water Spray).

CYCLONE Humidifiers.

CYCLONE Air Conditioning Plant.

CYCLONE Dehydrating Plant.

CYCLONE Drying Machines for all Materials.

CYCLONE Dust-Collecting Plants.

CYCLONE Warming and Ventilating Plant for Mills and Works.

CYCLONE Induced Draught for Boilers.

CYCLONE Stove Enamelling Plants.

CYCLONE Conveyors—Slat, Monorail, Bucket, etc.

CYCLONE Acetylene Generators—Welding and Cutting Plant.

Specialists in the design, construction and application of fans for every conceivable purpose.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

INDEX

	Page
Title Page...	1
View of "Cyclone" Works	2
Historical Foreword	3
Centrifugal Fans	
General Notes	4
S.S. (Slow Speed) Multivane Fans	
General Description and Illustrations	5-12
Performance Tables	14-29
Characteristic Curve	29
S.S. (Special Series) Small Volumes	
General Description and Illustrations	30
Performance Tables	31-32
H.S. (High Speed) Curved Back Fans	
General Descriptions and Illustrations	33-38
Characteristic Curve	38
Performance Tables	39-75
Arrangement Tables and Dimensions for S.S. and H.S.C.B. Fans	76-87
Arrangement Tables and Dimensions for S.S. (Special) Small Volume Fans	88
Outlet Drillings for Single Width Fans	89
Outlet Drillings for Double Width Fans	90
Rotation and Angles of Discharge Diagrams for S.S. and H.S.C.B. Fans	91
Operating Velocities and Tip Speeds	92
Impeller Circumferences for S.S. and H.S.C.B. Fans	92
Outlet Velocities for silent running	92
How to select "Cyclone" Ventilating Fans under Standard Conditions	93
How to select "Cyclone" Ventilating Fans under Special Conditions (<i>Temperature and Altitude</i>)	94
Altitudes above Sea Level...	95
Other than Sea Level and Standard Temperature	96
Altitude Density Table (Air)	97
Pressure required to overcome friction in pipes	98-99
Laws applying to Fans	100
Paddle Blade Fans	
General Description and Illustrations	101-102
Characteristic Curve	102
Performance Tables	103-112
Rotation and Angles of Discharge	112
Dimensions Tables	113
Pressure Blower and Exhauster	114
Electric Forge Blower	115
Centrifugal Fans Open Type	
Diagram and Dimensions	116
Performance Tables	117
Other "Cyclone" Products (illustrations)	118
"Cyclone" Specialities	119
Index	120

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

Page

1

2

3

4

5-12

4-29

29

30

32

33

38

75

87

88

89

90

91

92

92

92

93

94

95

96

97

99

100

102

102

112

112

113

114

115

116

117

118

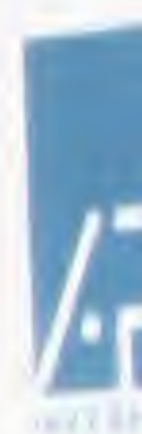
119

120

D.

©

Digit



ASSOCIATION
PRESIDENTS
INTER

BUILDING
TECHNOLOGY
HEALTH
LIBRARY

WWW

From



CALIFORNIA
ARCHITECTURE
CENTRE

WWW